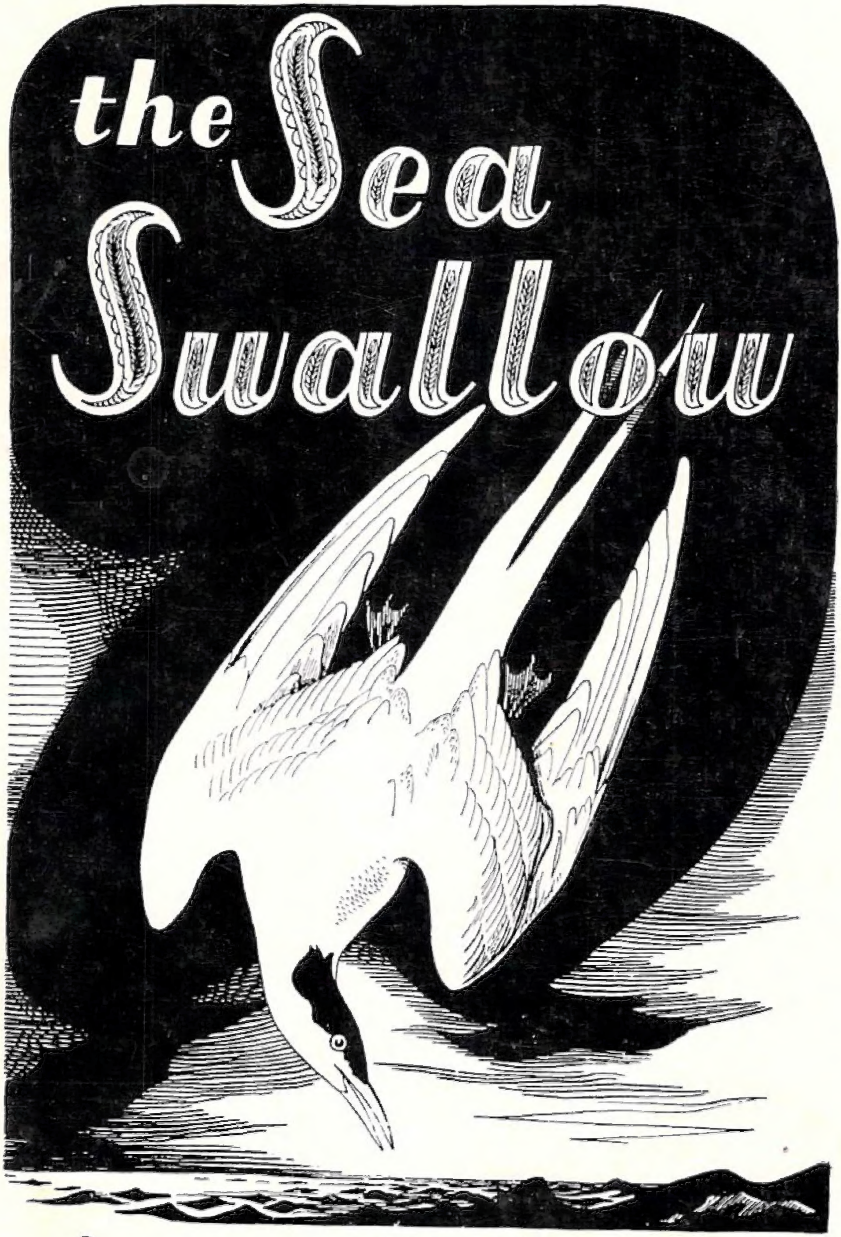
VOL. 24 1973/74

the Sea Swallow



BEING THE ANNUAL REPORT
OF THE ROYAL NAVAL
BIRD WATCHING SOCIETY

PUBLISHED 1975

ROYAL NAVAL BIRD WATCHING SOCIETY

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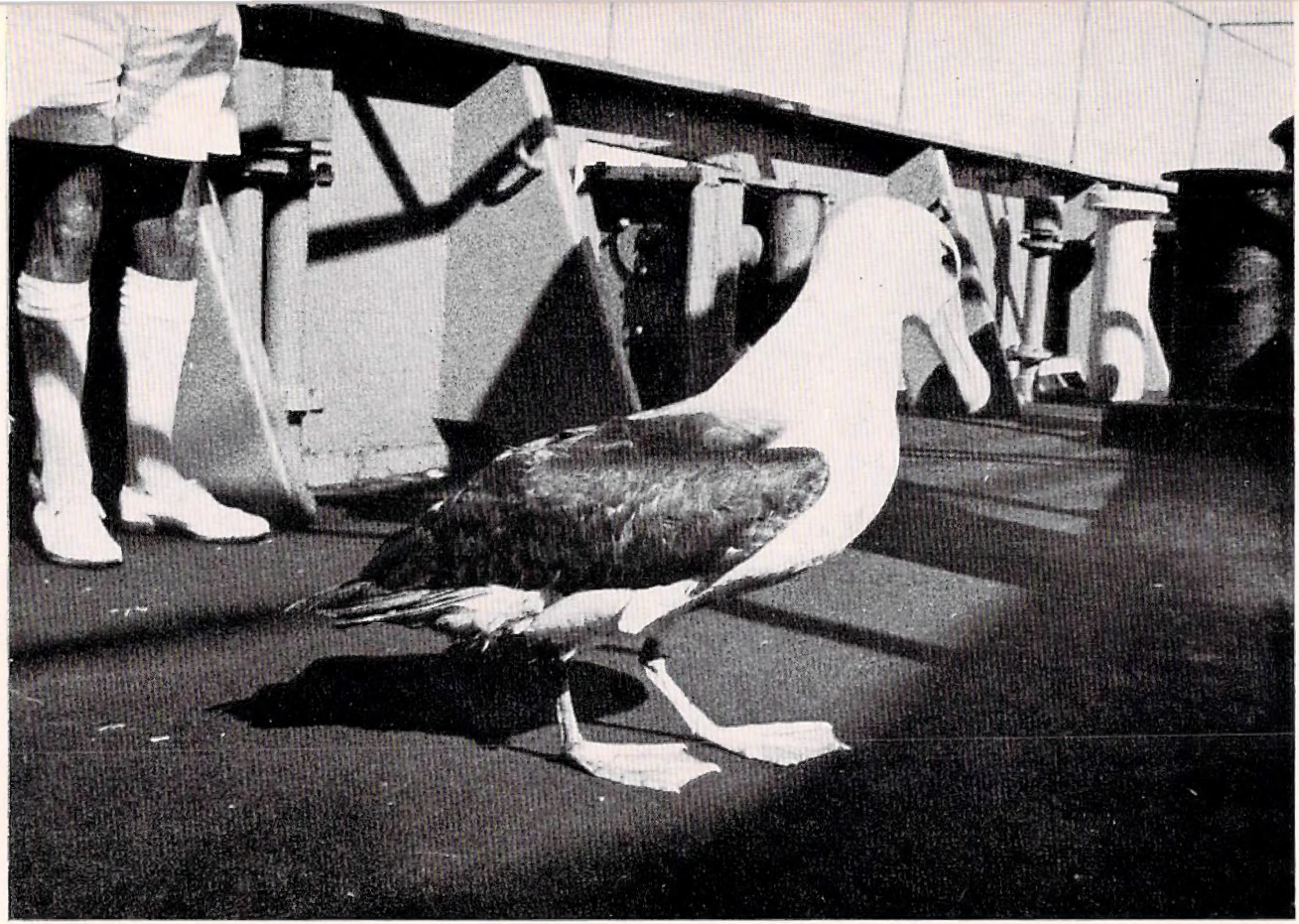

BLACK-BROWED ALBATROSS, *Diomedea melanophris*
Onboard M.S. *City of Liverpool* off Port Elizabeth
Photo from: Captain J. I. Owen, M.N.

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EDITORIAL

For many years, apart from the help of the Meteorological Office in fostering an interest in birdwatching at sea within the meteorological log returns of merchant ships, the strength of R.N.B.W.S.' membership has relied principally upon contact between existing members and shipmates at sea. The fact that over the years, and allowing for normal wastage, membership has not declined reflects upon the interest inspired by members in this way. Our information and assistance given to sources outside R.N.B.W.S., has also steadily increased the number of our associate members.

Bird study at sea is clearly of increasing appeal among seafarers, and during 1974 we have not been alone in furthering information on the advantage to be gained by joining R.N.B.W.S. A special approach has been made throughout the Royal Navy. At the same time Dr Ronald Hope, Director of the Seafarers' Education Service, has recently published his most valuable and instructive book entitled "Space time at sea" which includes a section on ornithology with special reference to membership of R.N.B.W.S., and which will have a wide circulation within the libraries of merchant ships. (See "Book Review" included in this volume.)

The results are encouraging, and during 1974 up to the time of preparing *Sea Swallow* for publication 34 new full members have joined.

The accumulation of information on a world-wide scale of the distribution of birds at sea is one of the principal objectives of R.N.B.W.S., and it is a matter of regret that as Editor I have not time to acknowledge personally each passage report that I receive from members. As always each return is carefully studied and the information and position of every positively identified species in the case of seabirds plotted on the ocean maps which I hold. The lists below show the details of returns received over a great variety of sea passages since 1st September 1973 to the preparation of the current volume of *Sea Swallow*.

My sincere thanks to all who have contributed.

SEABIRDS – SEA PASSAGE REPORTS. *Total* 37 *passages*. Lt. M. K. Barritt, R.N., 2; Radio Officer J. Breen, 1; Radio Officer W. F. Curtis, 2; I. G. Hall, 2; Capt. R. S. Hawkins, 1; 2nd Officer R. W. Joughin, 2; Chief Officer D. Mobberley, 5; Chief Officer W. C. W. Price, 1; Capt. K. Salwegter, 6; Lt.-Cdr. R. A. Smith, R.N., 3; Capt. J. W. Waldie, 8; Capt. R. R. Will, 4.

SEABIRDS – CENSUS PASSAGE REPORTS. *Total* 17 *passages*. Lt. M. K. Barritt, R.N., 1; Capt. P. W. G. Chilman, 10; Capt. R. S. Hawkins, 2; M. F. Holloway, 1; Capt G. H. Phillips, 1; Capt. J. W. Waldie, 2.

Landbirds – Sea Passage Reports. *Total* 19 *passages*. Lt. M. K. Barritt, R.N., 3; Capt. P. W. G. Chilman, 5; M. F. Holloway, 2; 2nd Officer R. W. Joughin, 1; Capt. D. W. Luff, 1; Capt G. H. Phillips, 1; Chief Officer W. C. W. Price, 2; Capt. K. W. Salwegter, 3; Capt. R. R. Will, 1.

Seabird Examination Reports on Passages. Total Seabirds Examined in Hand, *Total* 3. Lt. C. A. Howeson, R.N., 2; E. D. Macdonald, 1.

Landbird Examination Reports on Passages. Total Landbirds Examined in Hand, *Total* 7. Capt. P. W. G. Chilman, 4; A. Van Gaan, 1; Lt. C. A. Howeson, R.N., 1; Capt. K. Sawegter, 1.

Landbird Ocean Weather Ship Examination Reports. Total Landbirds Examined in Hand, *Total* 5. M. Allwright, 2; J. H. Halls, 1; A. W. G. Johns, 1; N. E. Marks, B. P. Cooper, 1.

The above figures do not include the passages by R.R.S. *Shackleton* and H.M.S. *Endurance* into Antarctic waters.

G. S. TUCK, *Editor*.

OBSERVATIONS AT SEA OF SEABIRDS IN THE SUB-ANTARCTIC AND ANTARCTIC ZONES SOUTH OF 50°S – LATE NOVEMBER, 1973 TO LATE MARCH, 1974

Collated and summarised by Captain G. S. Tuck, D.S.O., R.N.

Both R.R.S. *Shackleton* and H.M.S. *Endurance* visited the area, the former from late November, 1973 to mid-March, 1974, the latter from late February, 1974 to late March, 1974. The overall dates cover the latter period of the breeding seasons of the species quoted when chicks and fledgelings occur in the majority of colonies. The greatest numbers of adults were seen therefore in the vicinity of breeding islands.

SHACKLETON OBSERVERS. Capt. G. Selby-Smith, Master. P. Warner, Chief Mate. R. Graham, 2nd Mate, and P. Coombs, 3rd Mate. Valuable guidance in identification was afforded by Dr M. Harris, ornithologist, of the National Research Council. Periods of observation covered 0800–1200 hrs, 1300–1500 hrs and 2000 hrs to sunset, but all deck officers assisted so that most daylight hours were covered.

ENDURANCE OBSERVERS. Capt. C. J. I. Isaacs, R.N., in command, Chief Observer Admiral Sir Nigel Henderson (President of R.N.B.W.S.), Able Seaman M. Holloway (R.N.B.W.S.) and others.

Shackleton's observations were presented by detailed tables for each species showing positions and estimated numbers seen on each of the ship's 4 voyages, together with covering narratives.

Endurance's observations were recorded in narrative form as the voyage proceeded, with additional notes covering positions where each species occurred and remarks on colonies visited ashore.

PRESENTATION

Observations by both ships have been transferred to plotted maps within the area covered (see maps 2–7). FILLED-IN PLOTS refer to *Shackleton*'s observations, OPEN PLOTS to *Endurance*'s observations. In the largest plots, larger flocks, in many cases far exceeding 10 in number, were estimated, and can be considered best as "MANY".

The following species observed have not been included in the maps and are mentioned as applicable in the summaries of voyages: *Aptenodytes forsteri*, Emperor Penguin. *Aptenodytes patagonica*, King Penguin. *Garrodia nereis*, Grey-backed Storm-Petrel. *Phalacrocorax albiventer*, King Cormorant. *Phalacrocorax atriceps*, Blue-eyed Cormorant, *Larus dominicanus*, Southern Black-backed Gull. *Gabianus scorsebyi*, Magellan Gull. *Sterna hirundinacea*, South American Tern. *Sterna vittata*, Antarctic or Wreathed Tern.

ICE CONDITIONS, WHALES, KRILL

Shackleton's report. During voyage 1 (late November to early December, 1973) icebergs were first seen in open water every 1–2 miles half-way between South Georgia and South Orkney Is. Bransfield Strait was full of bergs and bergy bits with several packs of Killer Whales. Many grounded bergs around King George Is. During voyage 3 (late January to early February, 1974) many tabular bergs at 55°S south of South Georgia and extensive surface Krill choking water inlets. 20 miles north of Zavodorski Is. (South Sandwich Group) the volcano smelt and enormous numbers of Penguins occurred. 2 Humpback Whales "buzzed" the ship. Whole area east of South Sandwich Is. thickly covered with bergs, and a huge concentration of bergs near the 100 fathom line south and east of South Orkney Is. Voyage 4 (mid-February to early March, 1974). At 60°S extensive Krill choking water inlets. From 63°S onwards bergs, bergy bits, brash ice, and at 72°S pack ice with main pack 30 miles from the Caird Coast. At 73°S over 100 Whales sighted, Fin, Sei, Humpback, Killer and Sperm Whales all identified.

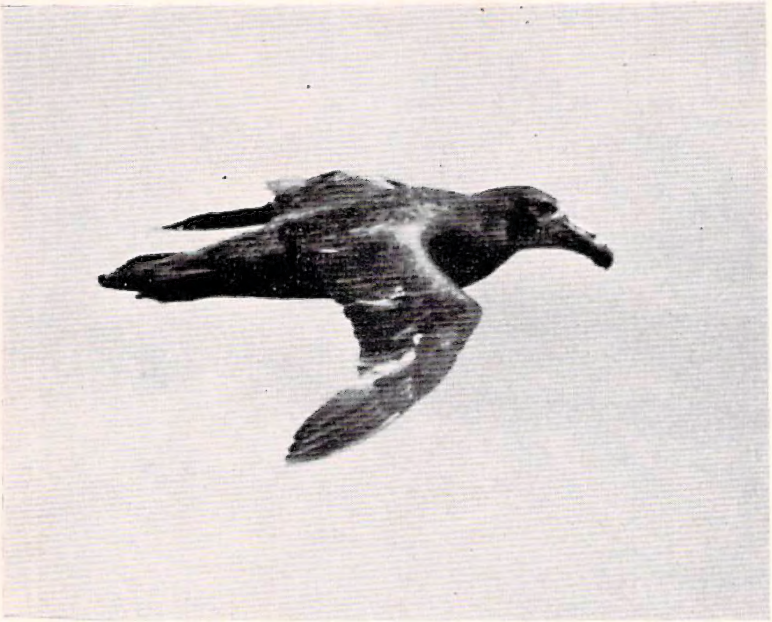
Endurance's report. (Late February, 1974 to late March, 1974.) Icebergs were first seen near Elephant Is. on 28th February. The weather was exceptionally fine during the passage southwards from then on and only a little brash ice was reported around Adelaide Is. Even at Marguerite Bay (March 4th–17th) there was no pack ice which was considered exceptional, and only a few stranded icebergs were seen at the end of the period.

GENERAL SUMMARY – R.R.S. *SHACKLETON* – ALL 4 VOYAGES

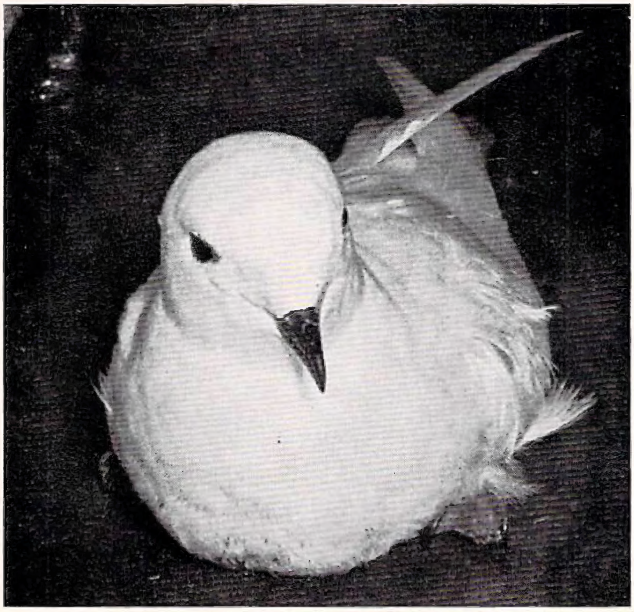
Diomedea exulans/epomophora. In all cases throughout the species were classed as "*exulans*" Wandering Albatrosses, many being in immature plumage. There was no confirmation of "*epomophora*", Royal Albatross, and it would seem doubtful if adults would be in the area during their breeding period in New Zealand from November to February. The majority of adult and immature "*exulans*" were observed between 52° to 60°S, the greatest numbers between the Falkland Is. and Staten I., and again in the areas surrounding South Georgia and between the South Sandwich Is. and South Orkney Is. Very few were observed south of 61°S.

Diomedea melanophris. Black-browed Albatrosses were by far the greatest numbers observed throughout all 4 voyages, large numbers around the Falkland Is. on voyage 2 near their breeding colonies. Immature and moulting birds increased towards the end of the period in late February.

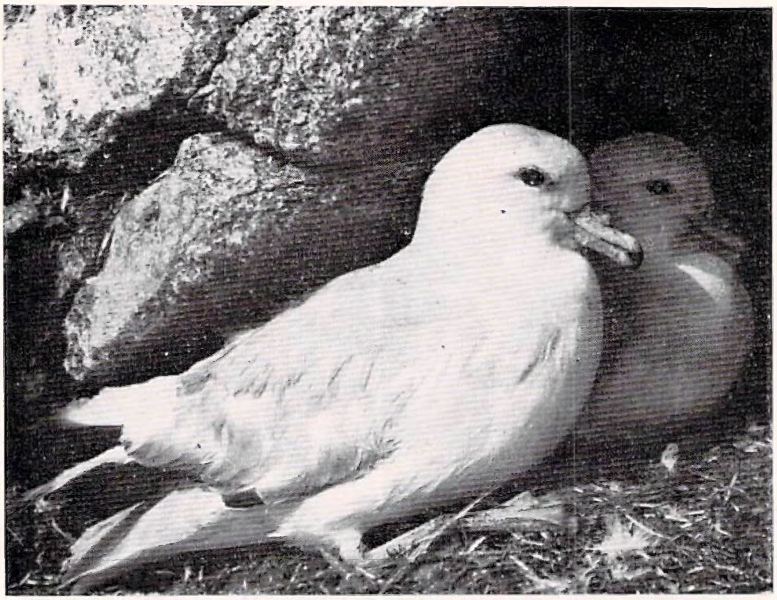
Diomedea chrysostoma, Grey-headed Albatross. Small numbers were seen south of the Falkland Is. where small numbers breed; regularly between 54° and 60°S and one sighting at 67°S on voyage 4 (see also large numbers west of Biscoe Is. in *Endurance*'s voyage).



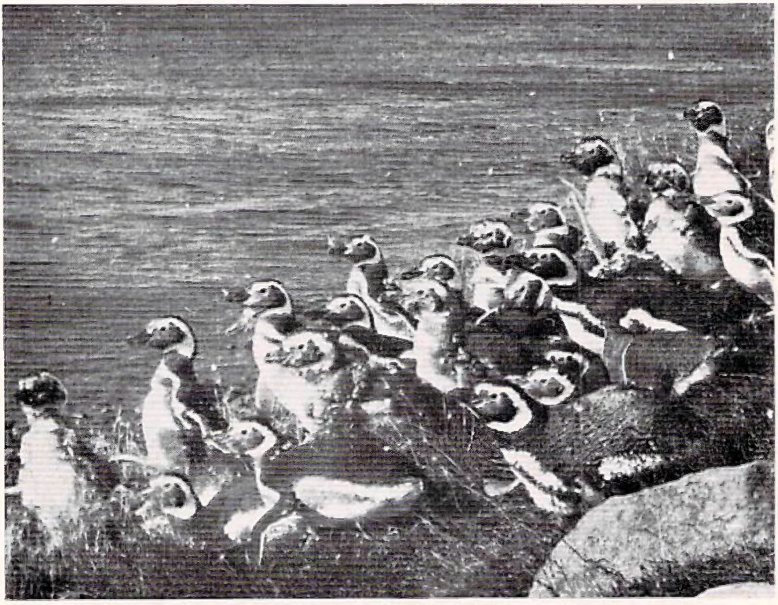
GIANT PETREL, *Macronectes giganteus*
Photo: J. H. Agnew, R.N.B.W.S.



SNOW PETREL, *Pagodroma nivea*
Lt. P. J. Ford, R.N., R.N.B.W.S.



SOUTHERN FULMAR or SILVER-GREY PETREL,
Fulmarus glaciaboides. By courtesy of A.N.A.R.E.



MAGELLAN PENGUINS, *Spheniscus magellanicus*
Photo: Lt. Springall, R.N., R.N.B.W.S.

Phhoebetria palpebrata, Light-mantled Sooty Albatross. The majority of sightings occurred between 53° and 60°S. in groups rather than singles off South Georgia where they breed. South Sandwich and South Orkney Is. Scattered singles were seen on voyage 4 between 60° to 67°S.

Macronectes giganteus, Giant Petrel. These were constant companions during all 4 voyages, in various stages of maturity, the darkest birds immatures. Nearer the Antarctic Circle to the ice edge at 70°S their plumage appeared paler and on three occasions white species were reported. In contrast with other species quoted below they seemed uninterested in icebergs.

Procellaria aequinoctialis, White-chinned Petrel. Seen regularly on all voyages between 50° and 60°S, in greater numbers in the Falkland Is. and South Georgia breeding areas. The most southerly sighting was at 63°S.

Daption capensis, Pintado Petrel or Cape Pigeon. Seen only 3 times in small groups in Falkland Is. area. In all other areas they were observed regularly particularly around their sub-Antarctic breeding islands, often occurring in large flocks particularly around icebergs in company with Southern Fulmars and Prions in mixed flocks. One small group observed at 68°S on voyage 4.

Fulmarus glacialoides, Southern Fulmar or Silver-grey Petrel. Most northerly sighting at 56°S. north of South Sandwich Is. Large numbers were seen around 60°S near South Sandwich, South Orkney and South Shetland Is., and also on voyage 4 southwards between 60° and 65°S with small sightings at 67° and 69°S at the pack ice.

Pagadroma nivea, Snow Petrel. Occurred mainly, sometimes in large flocks, at intervals between 55° and 60°S. Later on voyage 4 regularly south of 63°S to the Caird Coast where they were plentiful.

Thalassoica antarctica, Antarctic Petrel. No sightings north of 60°S. Seen in small numbers in the Bransfield Strait, but mainly in large flocks on voyage 4 between 62°S onwards to 72°S.

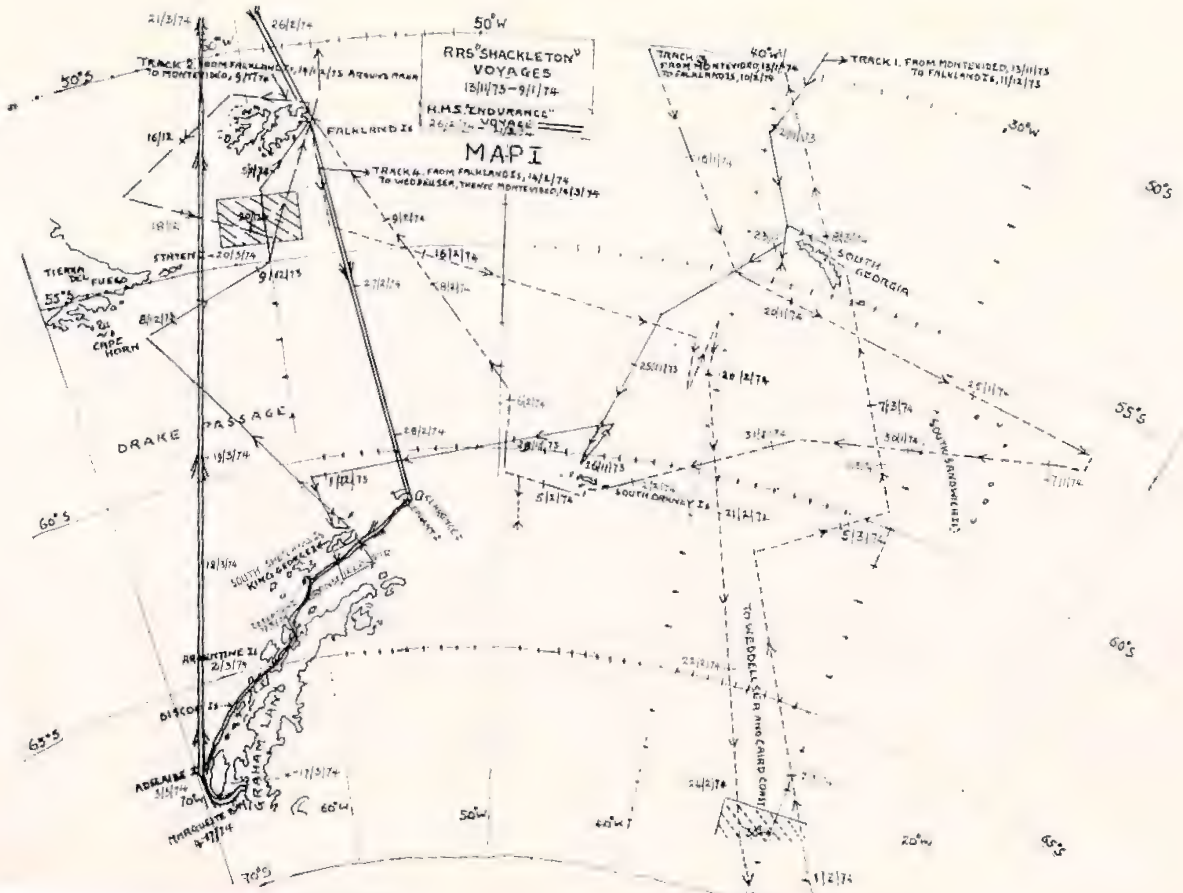
Halobaena caerula, Blue Petrel. No sightings north of 55°S. Small numbers seen at intervals on all voyages between 55° and 60°S. Large flocks occurred however on voyage 4 between 63°–70°S.

Pterodroma brevirostris, Kerguelen Petrel. No sightings north of 55°S. Large flocks occurred on voyage 4 from 61°–64°S, thence smaller numbers south to 70°S.

Pterodroma lessoni, White-headed Petrel. Singles only observed twice, at 56°S. 26°W and 55°S. 56°W.

Oceanites oceanicus, Wilson's Storm-petrel. Seen regularly on all voyages principally around the Falkland Is. and other sub-Antarctic breeding islands.

Fregetta tropica, Black-bellied Storm-petrel. Seen principally in small groups regularly between 53° and 61°S.


RRS "SHACKLETON" VOYAGES 13/11/73 – 9/1/74
H.M.S. "ENDURANCE" VOYAGE 26/2/74 – 3/4/74
MAP I
TRACK 1. FROM MONTEVIDEO, 13/11/73 TO FALKLANDS, 11/12/73
TRACK 2. FROM FALKLANDS, 9/1/74 TO MONTEVIDEO, 9/1/74
TRACK 3. FROM MONTEVIDEO 13/1/74 TO FALKLANDS, 10/2/74
TRACK 4. FROM FALKLANDS, 14/2/74 TO WEDDELLSEA, THENCE MONTEVIDEO, 16/3/74
FALKLAND Is
ARGWAIN MARK
STATEN I
TIERRA DEL FUEGO
CAPE HORN
DRAKE PASSAGE
SOUTH GEORGIA
SOUTH ORKNEY Is
SOUTH SANDWICH Is
TO WEDDELLSEA AND CAIRD COAST
ARGENTINE Is
DISCOVERY Is
ADELAIDE I
MARGUERITE BAY
GRAHAM LAND
50°W
40°W
30°W
20°W
50°S
55°S
60°S
65°S
70°S

Fregetta grallaria, White-bellied Storm-petrel. The very few observations south of Falkland Is. and west of South Georgia are considered doubtful.

Pachyptila sp., Prions sp. Large groups seen in all areas were constantly in evidence, frequently around icebergs.

Those in vicinity of Falkland Islands would probably have been *Pachyptila belcheri*, Thin-billed Prions, which breed locally and on the Patagonian coast: those southward from South Georgia more probably *Pachyptila desolata*, Dove Prions, which also breed on South Georgia and the Antarctic Continent. At sea, specific species could not be identified.

Pelecanoides sp., Diving Petrels. Observed principally between 53° and 58°S, the large flocks around South Georgia more probably *Pelecanoides georgicus*, Georgian Diving-petrels, but could not be identified specifically as such.

Puffinus griseus, Sooty Shearwaters. Observed in large flocks. Almost entirely confined to the sea area around the Falkland Is. where they breed.

Chionis alba, Yellow-billed Sheathbill. One was seen 92 miles south of the Falkland Is. during voyage 2: on several occasions 40 miles north of South Orkney Is. during voyage 1.

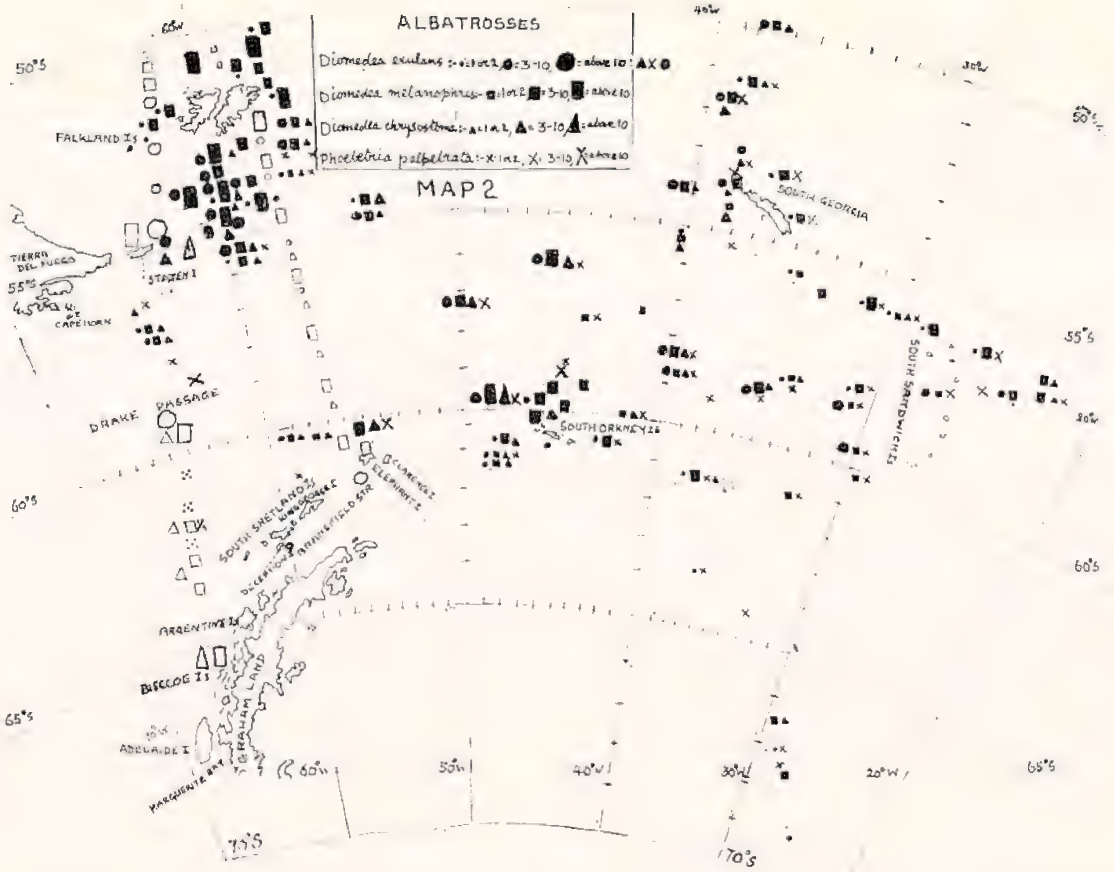
Catharacta Skua, Southern Skua. Sighted chiefly around the Falkland Is. and South Orkney Is., following ships occasionally elsewhere.

SPHENISCIDAE – PENGUINS. Voyage 1. *Pygoscelis Papua*, Gentoo Penguin. *Pygoscelis adeliae*, Adelie Penguin. *Pygoscelis antarctica*, Chin-strap or Bearded Penguin. *Eudyptes crestatus*, Rock-hopper Penguin. *Eudyptes chrysolophus*, Macaroni Penguin. *Spheniscus magellanicus*, Magellan Penguin.

Voyage 1. Considerable numbers of Gentoo and Macaroni Penguins sighted off South Georgia, and Chin-strap and Adelie Penguins, at the South Orkney Is., and later off King George Is. (South Shetlands).

Voyage 2. Ship spent one week hove-to in hatched area and was frequently visited by Penguins, both Macaroni, Rock-hopper and Magellan species.

Voyage 3. Penguins seen in large numbers during the voyage particularly Gentoo and Chin-strap and Macaroni species near South Georgia and Chin-strap towards the South Sandwich Is. At the latter islands the water and ice around Zavodovski I. was "full of them" (Chin-straps), and on the northern slopes of the island a solid rookery stretched to about 500 ft. The rookery extended around the shoreline; "there appeared to be millions". The South Orkneys were also well populated at sea and on floating ice, but no rookery observed.


ALBATROSSES
Diomedea exulans :- 1 to 2, 3-10, above 10
Diomedea melanophrys - 1 to 2, 3-10, above 10
Diomedella chrysostoma :- 1 to 2, 3-10, above 10
Phoebetria palpebrata :- 1 to 2, 3-10, above 10
MAP 2
FALKLAND Is
TIERRA DEL FUEGO
STATEN I
C. CAPE HORN
DRAKE PASSAGE
SOUTH SHETLAND Is
D'URVILLE I
ARGENTINE Is
BISCOE Is
ADELAIDE I
PARRY ENTRANCE BAY
GRAHAM LAND
CLARENCE I
ELEPHANT I
SOUTH ORKNEYS
SOUTH GEORGIA
SOUTH SANDWICH Is
60°W
50°W
40°W
30°W
20°W
50°S
55°S
60°S
65°S
70°S

Voyage 4. Large numbers of Magellan Penguins were seen close north of Falkland Is. Thereafter sightings were confined to Adelie Penguins far south at 67½°S and off the Caird Coastline at 72°S where one Emperor Penguin was seen on loose pack ice.

SHACKLETON – SEABIRDS NOT MAPPED

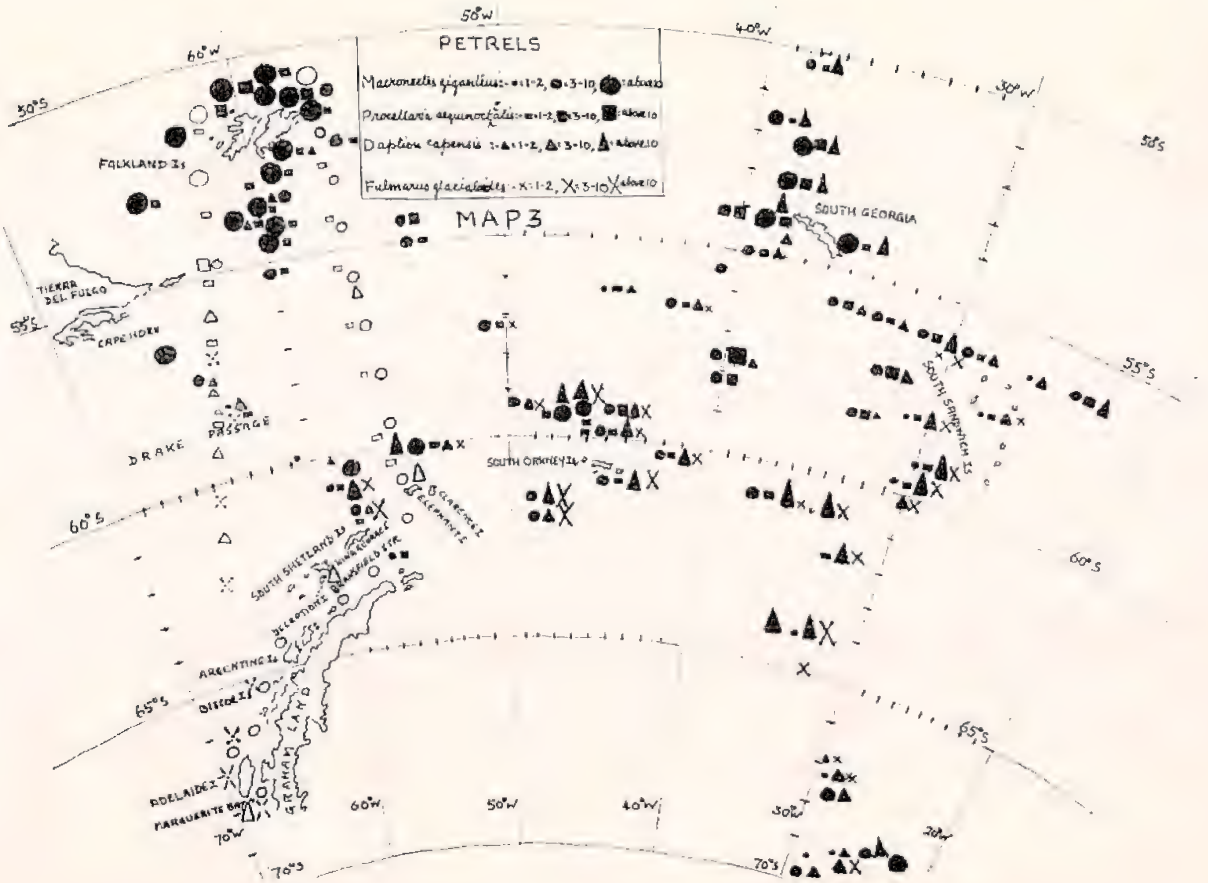
Aptenodytes forsteri, Emperor Penguin. One only seen during voyage 4 four miles off the Caird Coast. *Phalacrocorax albiventer*, King Cormorant. *Phalacrocorax atriceps*, Blue-eyed Cormorant. *Phalacrocorax magellanicus*, Magellan Cormorant. At the Falkland Is. both King and Magellan Cormorants were seen in considerable numbers offshore. Blue-eyed Cormorants were seen both at South Georgia and again off King George Is. *Laridae*. *Larus dominicanus*. Southern Black-backed Gull. *Gabianus scoresbyi*, Magellan Guil. Southern Black-backed Gulls were seen offshore both at Falkland Is. South Georgia, South Orkneys and King George I.: in South Shetlands in considerable numbers: Magellan Gulls at the Falkland Is. *Sternidae*. Always difficult to identify at sea. Very large numbers were seen in the far south during voyage 4. many flocks roosting on icebergs and ice floes or wheeling over pack ice. At 63°49'S, 35°W, 3 or 4 definite *Sterna vittata*, Antarctic Terns, spent some time diving and pecking at the ship's whip aerial.

H.M.S. *ENDURANCE* – SUMMARY OF ADMIRAL SIR NIGEL HENDERSON'S NARRATIVE

February 26th, 1974. Approaching the Falkland Is. Prions, Grey-backed Storm-petrels and both King and Magellan Cormorants were seen at sea together with large numbers of Giant Petrels and Southern Black-backed Gulls. During a short trip by helicopter vast numbers of King Cormorants, Rock-hopper Penguins, Gentoo Penguins and a few Macaroni Penguins were seen, many moulting. Some King Penguins were clutching their young. Magellan Penguins were also seen in great numbers at their nesting burrows.

Passage to Elephant Is. – 28th February. Giant Petrels accompanied the ship for 2 days and Black-browed Albatrosses were constantly present. A few Wandering and Grey-headed Albatrosses were also seen. Near Elephant Is. large numbers of Wilson's Storm-petrels, Black-bellied Storm-petrels and a small flock of Blue Petrels were seen together with many Pintado Petrels and Prions. The first icebergs were seen. Chin-strap Penguins were also seen off the island where they breed in large numbers.

March 1st. Deception Is. Enormous rookeries of Chin-strap and Gentoo Penguins with young were seen on the snow and lava covered slopes on either side of the entrance to the harbour. Hundreds of Antarctic Terns were seen on an adjacent hill, one bird noted with young, also two Yellow-billed Sheathbills. Rafts of Pintado Petrels were in the harbour, and Wilson's Storm-petrels and Southern Black-backed Gulls never far from the ship.


PETRELS
Macronectes giganteus:- ●:1-2, ●:3-10, ●:above 10
Procellaria aequinoctialis:- ■:1-2, ■:3-10, ■:above 10
Daption capensis :- ▲:1-2, ▲:3-10, ▲:above 10
Fulmarus glacialoides:- X:1-2, X:3-10 X:above 10
MAP 3
FALKLAND Is
TIERRA DEL FUEGO
CAPE HORN
DRAKE PASSAGE
SOUTH GEORGIA
SOUTH ORKNEY Is
SOUTH SANDWICH Is
SOUTH SHETLAND Is
BELLINGSHAUSEN
ARGENTINE Is
ADELAIDE I.
PALMER LAND
60°W
50°W
40°W
30°W
20°W
50°S
55°S
60°S
65°S
70°S

MARCH 2nd. PASSAGE TO ARGENTINE IS. Passing through the fantastic snow and mountain scenery of the Neumayer and Le Maire channels in bright sunshine not much bird life was seen apart from Wilson's Storm-petrels. Ashore near the Argentine Base, Wilson's Storm-petrels were nesting with young, and Southern Skuas in evidence. On leaving the Argentine Base and outside the Biscoe Is. very large numbers of Black-browed and Grey-headed Albatrosses were sitting in rafts on the water of up to 100 birds. The Black-browed outnumbered the Grey-headed by about 10 to 1. Giant Petrels continually with the ship.

MARCH 3rd. ADELAIDE IS. BASE. Some brash ice about and the first Adelie Penguins seen.

MARCH 4th. MARGUERITE BAY. 2 weeks surveying. The bay was surprisingly free of ice. Avian I. is one of the rocky islets used as Decca Hi Fix stations and most interesting for bird observations. Large numbers of Adelie Penguins, Giant Petrels, both dark and pale, Wilson's Storm-petrels, Southern Black-backed Gulls and Blue-eyed Cormorants were on the island with young with predatory Southern Skuas in attendance.

The commonest birds seen within the bay in descending order of frequency were: Antarctic Fulmars, Pintado Petrels, Wilson's Storm-petrels, Antarctic Terns, Southern Black-backed Gulls, Southern Skuas, McCormick's Skuas, Blue-eyed Cormorants, Giant Petrels, Antarctic Petrels and Snow Petrels. In fact only 3 Snow Petrels were seen during the two weeks.

MARCH 17th. Ship sailed north past Adelaide Is. in perfect sunny weather. Probably about 1,000 Antarctic Terns seen sitting on brash ice. Antarctic Petrels and Snow Petrels followed the ship with other species seen previously.

MARCH 18th. Clearing South Shetland Is. Black-browed, Grey-headed and light-mantled Sooty Albatrosses seen.

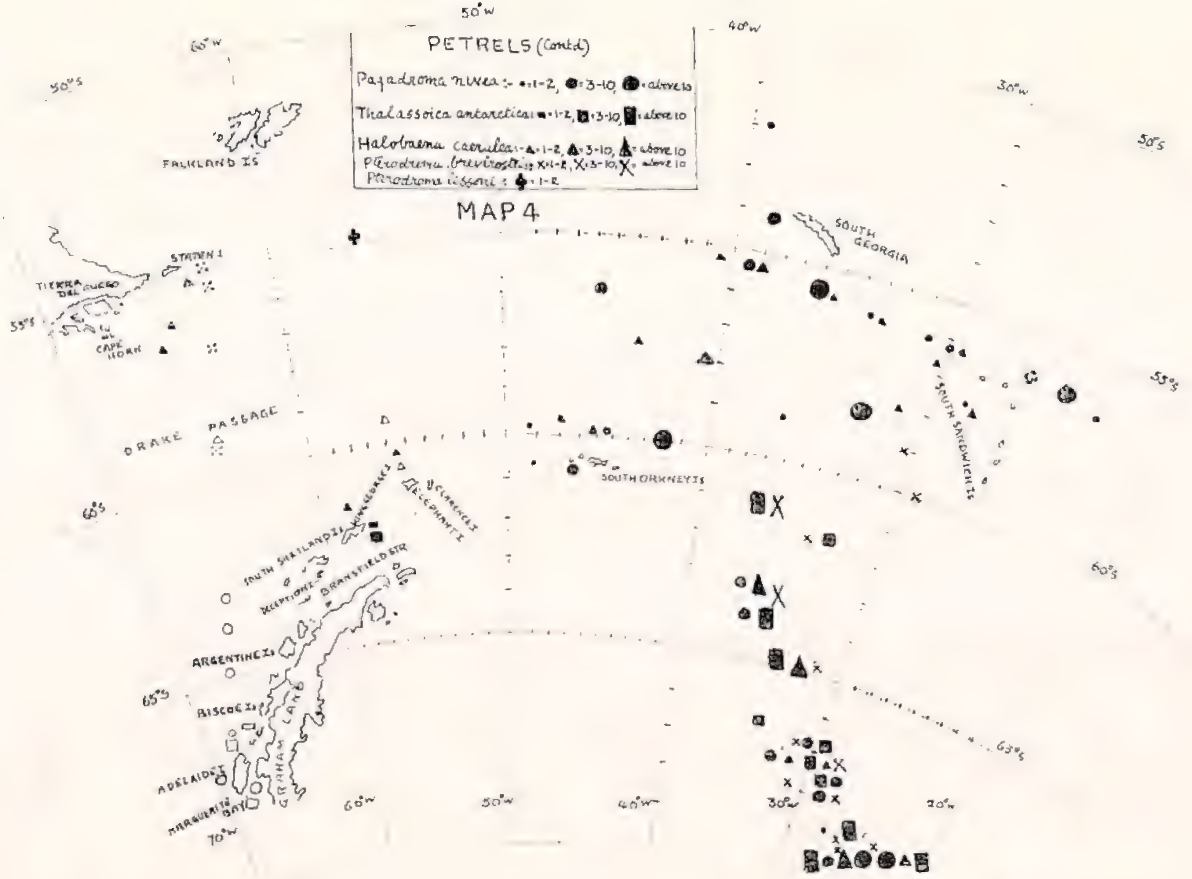
MARCH 19th. Drake Passage. Besides the Albatrosses, 2 Blue Petrels and 2 Kerguelen Petrels seen.

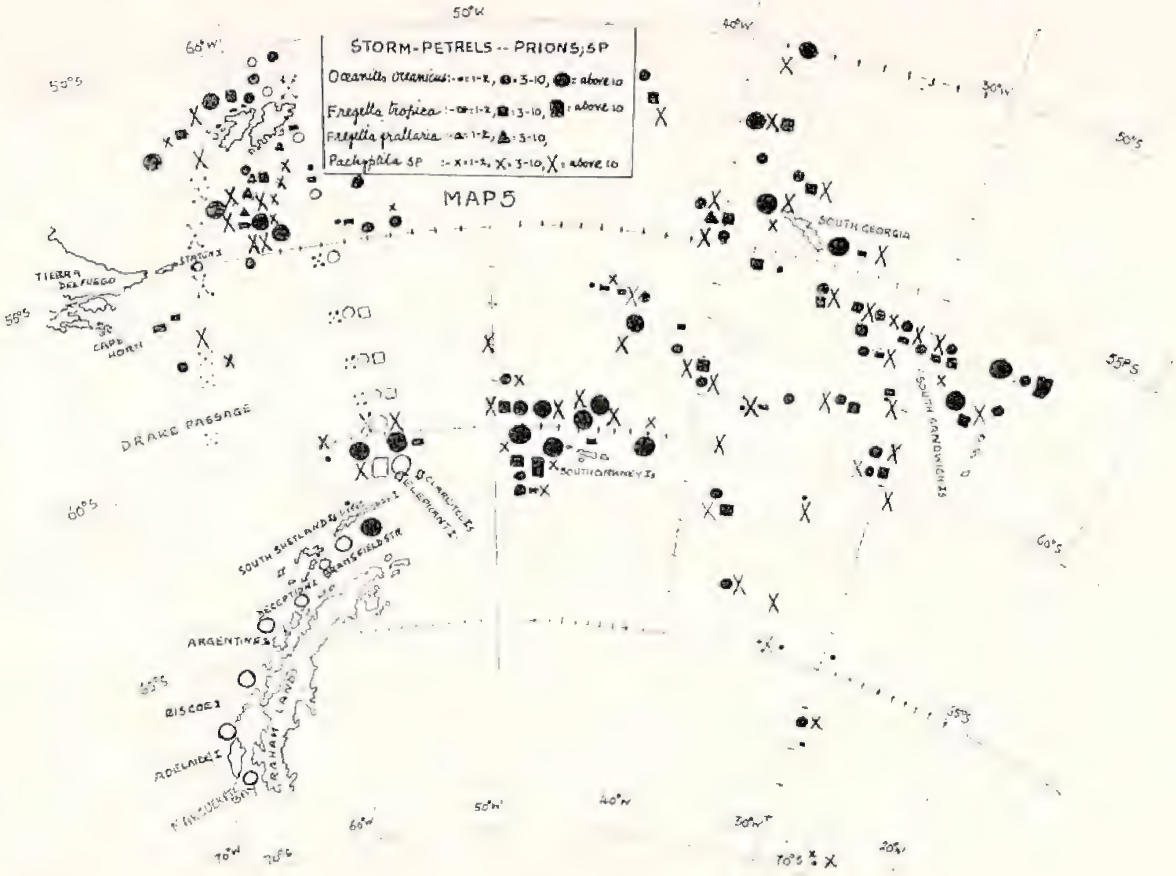
MARCH 20th. Passing Staten Island. Large number of Black-browed and Wandering Albatrosses and some Grey-headed Albatrosses in company with Giant Petrels and Wilson's Storm-petrels following ship, Kerguelen and White-chinned Petrels and Common Diving-petrels seen. By evening the ship was again passing the Falkland Is.

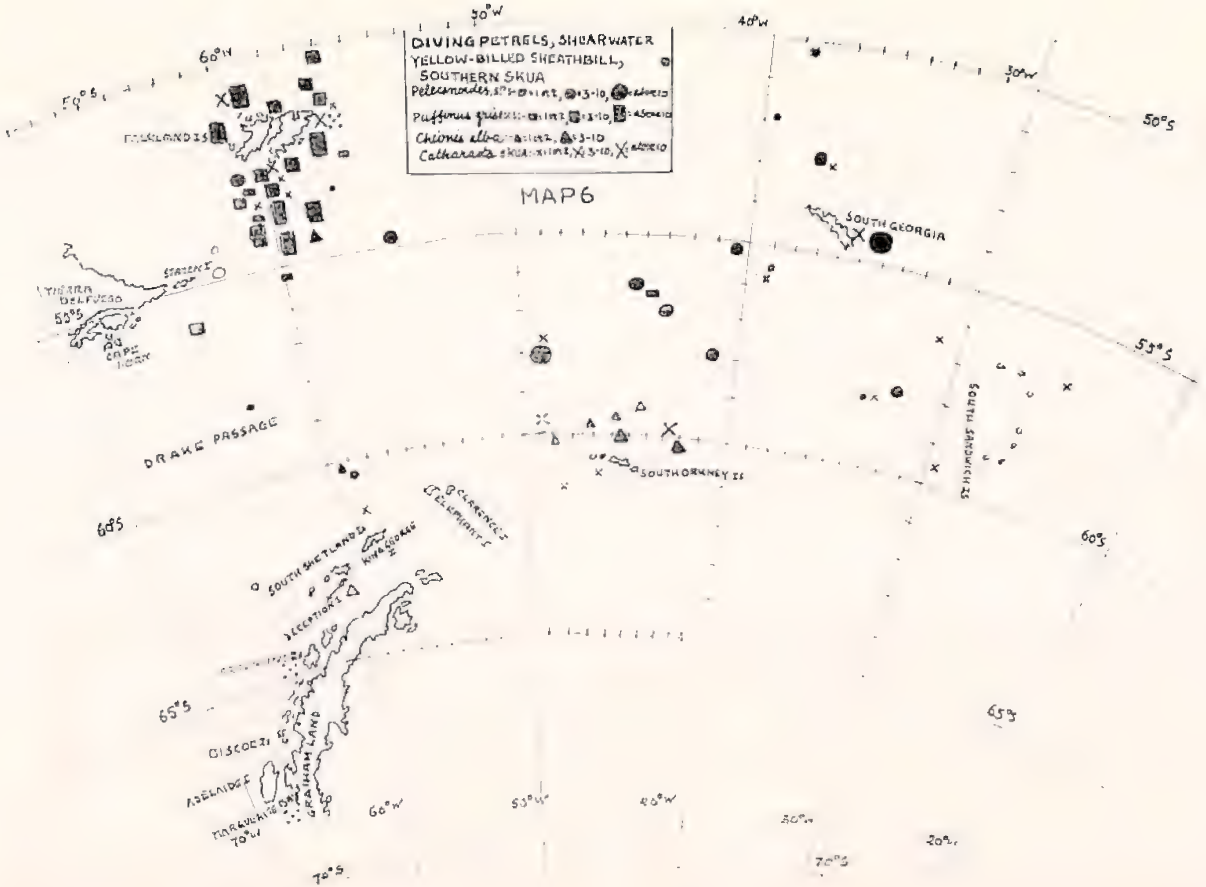
FORMER REFERENCES

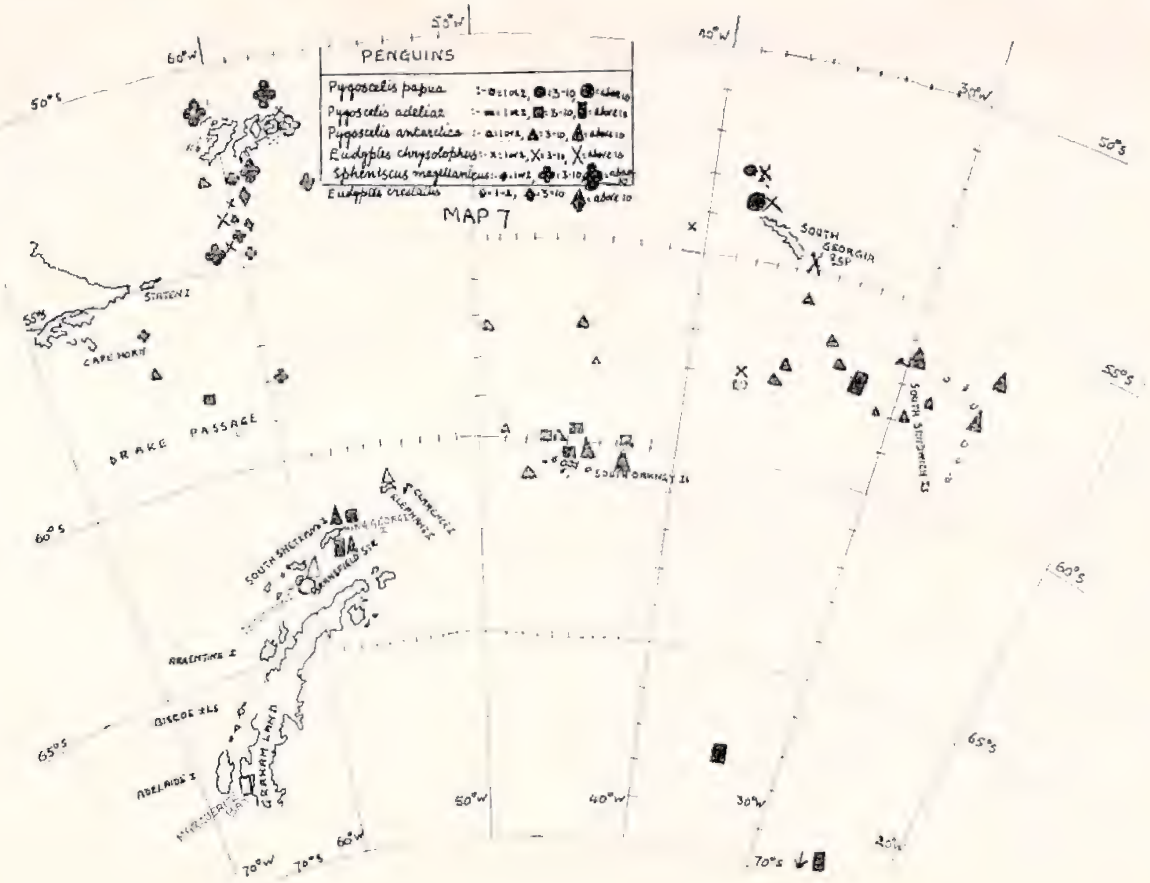
Sea Swallow, Vol. 20 – 1968. Bird observations in the Weddell Sea – George Edwards.

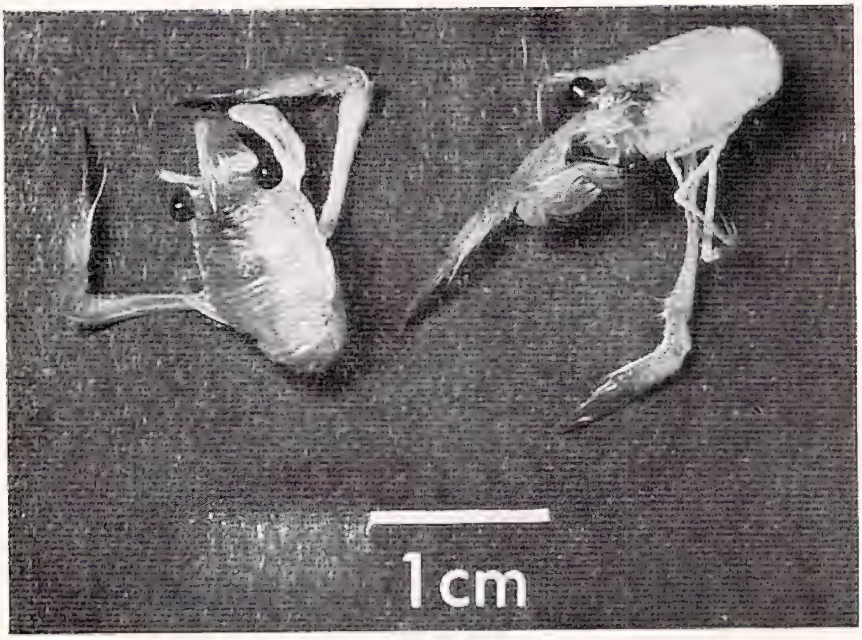
Sea Swallow, Vol. 22 – 1971/72. H.M.S. *Endurance* Passage to Antarctic – General Sir Gerald Lathbury, G.C.B., D.S.O., M.B.E.


PETRELS (Contd)
Pagodroma nivea :- •:1-2, ●:3-10, ⬤:above 10
Thalassoica antarctica :- ▪:1-2, ◘:3-10, ▮:above 10
Halobaena caerulea :- ▲:1-2, ◭:3-10, ⧋:above 10
Pterodroma brevirostris :- X:1-2, X:3-10, X:above 10
Pterodroma lessoni :- ✤:1-2
MAP 4
50°W
40°W
60°W
30°W
50°S
FALKLAND IS
STATEN I
TIERRA DEL FUEGO
CAPE HORN
55°S
DRAKE PASSAGE
SOUTH GEORGIA
SOUTH SANDWICH IS
SOUTH ORKNEYS
SOUTH SHETLANDS
ELEPHANT I
CLARENCE I
LIVINGSTON I
DECEPTION I
BRANSFIELD STR
ARGENTINE IS
BISCOE IS
ADELAIDE I
GRAHAM LAND
MARGUERITE BAY
65°S
70°W
60°S
63°S


STORM-PETRELS -- PRIONS; SP
Oceanites oceanicus: ·= 1-2, ● = 3-10, ● = above 10
Fregetta tropica: ·= 1-2, ● = 3-10, ● = above 10
Fregetta grallaria: ·= 1-2, ▲ = 3-10
Pachyptila SP: · = 1-2, X = 3-10, X = above 10
MAP 5
TIERRA DEL FUEGO
STRAITS
CAPE HORN
DRAKE PASSAGE
SOUTH GEORGIA
SOUTH ORKNEY IS
SOUTH SANDWICH IS
SOUTH SHETLAND IS
BRANSFIELD STR
DECEPTION I
ARGENTINE I
BISCOE I
ADELAIDE I
GRAHAM LAND
ELEPHANT I
CLARENCE I
50°W
40°W
60°W
50°S
55°S
60°S
35°S
30°W
70°W
70°S
20°W


DIVING PETRELS, SHEARWATER
YELLOW-BILLED SHEATHBILL,
SOUTHERN SKUA
MAP6
FALKLAND IS
SOUTH GEORGIA
TIERRA DEL FUEGO
STATEN I
CAPE HORN
DRAKE PASSAGE
SOUTH ORKNEY IS
SOUTH SHETLAND IS
KING GEORGE I
DECEPTION I
CLARENCE I
ELEPHANT I
SOUTH SANDWICH IS
DISCOVERY I
ADELAIDE I
GRAHAM LAND
MARGUERITE BAY
30°W
40°W
50°W
60°W
70°W
50°S
55°S
60°S
65°S
70°S


PENGUINS
Pygoscelis papua
Pygoscelis adeliae
Pygoscelis antarctica
Eudyptes chrysolophus
Spheniscus magellanicus
Eudyptes crestatus
MAP 7
STATEN I
CAPE HORN
DRAKE PASSAGE
SOUTH GEORGIA
SOUTH ORKNEY IS
SOUTH SHETLAND IS
ARGENTINE I
DIEGO IRS
ADELAIDE I
GRAHAM LAND
60°W
50°W
40°W
30°W
20°W
70°W
50°S
55°S
60°S
65°S
70°S



Lobster-Krill, *Munida*
(enlarged from actual life size of about 1 inch, 2.54 cms, from tip of claws)

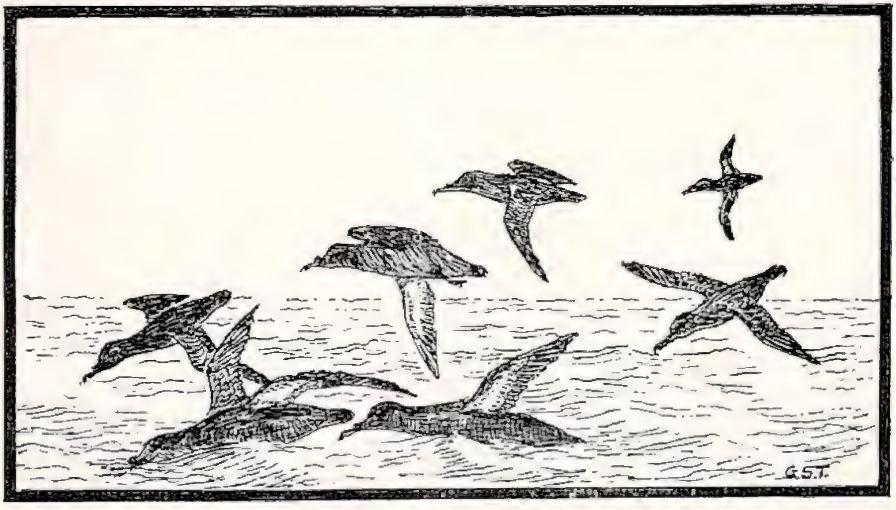
BIRDS FEEDING ON LOBSTER-KRILL OFF THE FALKLAND ISLANDS

By Dr W. R. P. Bourne
(from specimens forwarded by Able Seaman M. F. Holloway)

Mr Holloway reports that between 1100 and 1200 hrs on 29th March, 1974 H.M.S. *Endurance* passed through 1,200 birds feeding in parties on the water upon red patches of lobster-krill about 6.6 miles off the East Falkland Islands. They included about 500–600 Black-browed and 50 Wandering Albatrosses, *Diomedea melanophris* and *D. exulans*, over half immatures, about 300 Sooty and 12 Great Shearwaters, *Puffinus griseus* and *P. gravis*, 20 White-chinned Petrels, *Procellaria aequinoctialis*, seven Giant Petrels, *Marconectes sp*, two Diving-petrels, *Pelecanoides sp*, ten Wilson's Storm-petrels, *Oceanites oceanicus*, one Skua, *Catharacta skua*, 50–60 Magellan Penguins, *Spheniscus magellanicus*, and 200 Magellan with 50 King Cormorants, *Phalacrocorax magellanicus* and *P. albiventer*. One Black-browed Albatross had an unusual orange flush around the back of the neck.

Two specimens of lobster-krill, *Munida*, which he collected in a dip-net, are shown in the photograph which is greatly enlarged from their life size of about one inch (2.54 cms).

It is discussed by L. Harrison Mathews in Discovery Report 5: 469-484, 1932, summarized by Sir Alister Hardy on p. 208-9 of his account of Discovery investigations, "Great Waters" (Collins, 1967). In sharp distinction to the normal krill, *Euphasia superba*, which forms one of the main foods for birds and marine mammals in the far south, it is the juvenile stage of a small rock-lobster, *Munida gregaria*, and remains swimming near the sea surface long after immature forms of other large crustacea, including those of the closely allied species *Munida sarugosa*, which occurs with it, have migrated to the sea floor. It also appears to form a major food for marine animals in areas with water temperature ranging between 5.5–9°C all round the sub-Antarctic zone, not only off South America but also New Zealand, where it is known as "whale feed", while it appears to be replaced by an allied species, *Pleuroncodes planipes*, off the west coast of Mexico.



Lobster-Krill—Sooty Shearwaters. *Puffinus griseus* wins the feast

WHITE-CAPPED NODDIES (*Anous minutus*) OVER SOUTH-EAST BLIGH WATER, APRIL 1974

By Lieutenant M. K. Barritt, R.N.

During the latter part of the 25th and the morning of 26th April 1974 the Fiji Group experienced the effects of minor cyclone 'Tina', which was associated with a complex trough extending from the Solomons to Tonga.

H.M.S. *Hydra* was at anchor throughout this period outside the reef passages four and a half miles WNW of Vathia Lailai, Viti Levu (Admiralty Chart 381).

At 1700 on 25th April the first groups of a large wave of White-capped Noddies were observed flying in before the squally north-westerly and congregating over the shallowly-covered inshore reefs. By 1720 there were not far short of 1,000 birds low over Sali Sali and Tavutha reefs, most of which were in three small areas which were completely blackened with birds. At sunset (1750) large groups were still present as the wind gusted to 25 knots and rain squalls closed the visibility in for the night.

At 2040 I was called to the quarterdeck to witness a large flock of about 1,200 Noddies flying round the ship. The waists and fo'csl were full of birds trapped in corners. Some birds perched quietly in areas out of the heavy rain, but the majority appeared to have been mesmerised by our bright lighting and its reflection in our white paintwork. When taken clear of obstructions for release, or when placed in a sheltered but open spot, they almost immediately took off and flew back onboard down the lit waists or against bulkheads. I eventually switched off all upper-deck lighting, and lowered the after anchor light which was illuminating the hangar door into which many birds were careering. They continued to fly round the forward anchor light, round a fishing light which was almost at the water line over the stern, and round the bridge windows.

By 0600 on 26th the wind had gone round 180 degrees but there was no sign of a break in the weather. Heavy rain continued. No birds were flying round the ship but a large number were still onboard, including about 60–70 on the Captain's Bridge Deck sheltering behind the screen and clustering round the galley exhaust. Only this group remained after 0640 when, during a slight slackening of the rain, other birds departed into the growing light.

At 0730 the ship weighed to proceed towards Vanua Levu. About 40 Noddies remained on the Captain's Bridge Deck. At 1300 a break in the clouds became apparent to the West. At 1420 the rain stopped, and at 1445 the wind veered to Westerly at 10 knots. At this time the remaining Noddies departed into wind.

Large flocks of White-capped Noddies are common in South-East Bligh Water over the inshore passages off Viti Levu and Vanua Levu which are rich with fish. The largest concentrations of the species were seen in the vicinity of Mbua Bay, Vanua Levu, and in the area of our experience of 25th-26th April. Here huge shoals of small fish, as well as tuna and other larger types were frequently observed. The birds which came onboard were well fed and in their fear regurgitated almost complete small fish. Throughout the remainder of April and the greater part of May on leaving our anchorage off Vathia Lailai in the morning and on return in the evening we observed large close-packed rafts of White-capped Noddies to seawards of Sali Sali and off the reefs of Mboromboro, Vatututotolu, and Masi, together with large and small flocks fishing throughout the area. The largest estimate made, on 8th May, was of about 3,115 birds, most of them in four large rafts.

An adult and an immature bird were measured, sketched and photographed on the night of 25th April. The immature bird had a brown tinge to its plumage, and the white markings on the forehead are more limited than in the adult, terminating abruptly on the crown without the lavender-grey on the nape which, in the adult, shades between white head and dark charcoal-grey mantle. The immature head also seemed somewhat narrower when viewed from the front. Bill dimensions were identical.

From our records made between April and August 1974 the White-capped Noddy (*Anous minutus*) appears by far the commonest of its genus in Fijian waters.

RECORDS OF WADERS, PLOVERS, ETC., IN PENANG

Extracts from a report by Lieutenant M. J. Colwell, R.N. (recently returned from 2 years liaison with the Royal Malaysian Navy).

From September 1973 to July 1974 many observations of species were made by Lieut. Colwell at least twice a week, concentrated mainly in areas around George Town.

The following areas appeared most popular.

1. Jelutong mudflats on the eastern side of Penang, a stretch of rich mudflats between the city dump and sewerage outlet at its extremities.
2. Tanjong Tokong outer sand spit.
3. Batu Maung area, mudflats and Padi Fields.
4. University fields.
5. Bayan Lepas Airport and surrounding Padi Fields.
6. Racecourse area.

The following species were studied:

Red Wattled Lapwing, *Vanellus indicus*, 2nd Dec. 1973. Bath Maung Padi Fields
Lesser Golden Plover, *Pluvialis dominica*.
Little Ringed Plovers, *Charadrius dubious*, 24th Jan. 1974. Jelutong mud flats. Winter plumage.
Lesser Sand Plover, *Charadrius mongolus*.
Eastern Curlews, *Numenius arquata*.
Marsh Sandpipers, *Tringa stagnatilis*.
Greenshanks, *Tringa nebularia*.
Wood Sandpipers, *Tringa glareola*.
Avocet Sandpipers, *Tringa terek*.
Long-toed Stints, *Calidris subminuta*, early April, 1974.
Common Sandpipers, *Tringa hypoleucos*.
Turnstones, *Arenaria interpres*.
Pintail Snipe, *Gallinago stenura*.
Sanderling, *Calidris alba*, 23rd March, 1974. Tanjong Tokong outer sandspit.
Curlew Sandpipers, *Calidris ferruginea*, 30th June, 1974. Jelutong sewerage outlet: 8 in winter plumage, 2 with slightly reddish head and upperbreast.
Red-necked Stints, *Calidris ruficollis*, 4th May, 1974.
Eastern or Collared Pratincoles, *Glareola pratincola*.

STINTS

Three species have been recorded in the Malaysian Peninsula. The Red-necked Stint is supposed to be very common in flocks on mudflats and coastal stretches of sand. The Long-toed Stint is considered to be not so common and prefers inland lying marshes. Temminck's Stint is considered a very rare vagrant and not recorded in Penang. All these Stints are passage migrants and winter visitors to Malaysia from October to May. The Stints were only observed on the Jelutong mudflats, the estimated number at any one time being usually over 500. On these mudflats many other waders can be observed.

RED-NECKED STINT. Very small, back and top of head light chestnut-grey streaked with darker grey. Forehead in front of eye, throat and breast appear very white. Side of head behind eye and side of throat grey. Supercilium stripe white. Bill and legs black. In flight a white stripe can be observed on the wing; also the tail appears whitish on each side of a dark grey centre stripe.

On 4th May, 1974 some birds were in summer plumage with side of head, throat and upper breast very reddish-chestnut neither striped nor spotted, the top of head reddish-grey. The supercilium stripe and forehead whitish. These Stints left for their breeding localities on the 8th or 9th May, 1974.

General observations of Red-necked Stints:

Seen in flocks of 200–300 in company with Curlew Sandpipers, Lesser Golden Plovers, Common and Terek Sandpipers and Long-toed Stints. Preferred open areas of mudflats, moving and feeding and so constantly in a crouched attitude.

LONG-TOED STINTS. Very small, back and head chestnut-brown striped with black. Breast white. Long supercilium stripe light brown. Throat and upper breast striped brownish-grey. Bill black, legs yellow.

In early April the birds were coming into summer plumage with back and head very rich chestnut. Throat and upper breast becoming very rich chestnut-grey with blackish streaking and flecking.

Seen in small flocks of 18–36 in company with other waders feeding sporadically and in an upright position more often than Red-necked Stints.

It was hoped that future information of their migrating movements would be obtained by limited mist netting.

REFERENCES: A. G. Glenister (1971). The birds of the Malaya Peninsula. Oxford University Press.

Robinson, H. C., and Chasen, F. N. (1936). The birds of the Malaya Peninsula, Vol. IV, Witherby, London.

1973 OCEAN WEATHER SHIP ANALYSIS

INTRODUCTION

Table A includes all the figures for 1973. Some of these have already appeared in volume 23, but have been included so that they may be the more easily referred to when reading these notes.

The observers who provided the detailed reports from which these extracts are taken were: R. C. Aran; R. Dyer; C. I. Griffiths; P. H. Hoare; A. W. G. John; E. D. MacDonald; D. Ogle; R. Philp; T. D. Rogers.

OCEAN WEATHER SHIP OBSERVATIONS SUMMARISED

FULMAR PETREL. The extracts included in this paragraph were all from Station India. In January one Blue-Phase bird seen was so dark that "it might easily have passed for a Sooty Shearwater" to someone unfamiliar with that species. In contrast, on 24th August, "All-white Fulmar seen. Completely white with the exception of a pale cinnamon patch on primaries and dark eyes. Legs not seen. Flew straight past the ship and not seen again." It was also remarked on another occasion that the Blue-Phase varied: some being noticeably darker than the others. Behaviour: seen diving two or three feet under water for food – bread and sandwiches! One seen pecking at stalked barnacles (*Lepas sp.*), but did not eat any.

GREAT SHEARWATER. The feeding habits of this species raised comments as well – this time from Station Juliet: "On 30th September very large numbers came close to the ship, which was steaming slowly forward at about 2 knots. The Shearwaters were attracted by herring heads, guts, etc., thrown to them, crowding so close behind the ship that it would have been very easy to catch dozens with a hand net. When the supply of herrings had run out the galley was raided for any other available food, which was eagerly awaited by the throng of Shearwaters. Cooked chicken was liked, also raw steak, bacon; one or two ate white bread but none

ate chocolate pudding (much favoured by Fulmars). Most food was taken by diving, the Shearwaters often poking their heads under water to see what was about, then diving swiftly to retrieve it, using their wings to swim. Tried on other occasions with cooked pork (not much liked) and squid heads (much appreciated).

MANX SHEARWATER. On several separate occasions (Station India in August) they were reported in the company of Dolphins and Whales. "Shearwaters then fed actively by crashing into the water in their wake". After feeding they were seen to settle on the water in rafts of up to 100 birds for a short while before rising and following the Dolphins off to the west.

PETRELS. It was noted at Station Juliet (September) that the long legs of the Wilson's Storm-petrel formed a good identity characteristic on most occasions, while the "distinctive bounding flight" of the Leach's Petrel was not always apparent. On one occasion when both Wilson's and Leach's had landed on deck, it was observed that while the former was able to take off easily (a light cross wind prevailed) and clear the bulwark, the Leach's had to be launched overboard.

GREAT SKUA. On 23rd July at Station India a bird with a rather pale mantle was seen with a yellow ring on the right leg and a metal one on the left.

On several occasions (Station India, October) one was seen chasing Sooty Shearwaters using a very fast powerful flight. Just before being caught the Shearwater would dive shallowly into the water, whereupon the Skua would swoop vertically upwards for 20 or 30 feet before plummeting down on its victim. On one occasion (too far distant to properly ascertain) it was thought that the Skua may have killed the Shearwater.

LESSER BLACK-BACKED GULLS. All those seen at Station Alpha in April/May were of the British/Icelandic subspecies – *Larus Fuscus Graellsii* – with yellow legs and dark mantle.

KITTIWAKES. From 17th January (Station India) it was noticed that most birds seemed to be losing their winter plumage, and some were in summer plumage before the ship left station on the 27th. Further south, at Station Juliet, in late February early March, it was noted that on an average about 10% of all birds seen were in breeding plumage – except, for some reason, on February 28th when nearly all of the 500 birds seen were in breeding plumage.

TERNS. Referred to as "Squeaky Seagulls" by one crew member! they were frequently seen 'dive-bombing' Great Skuas when the two were together – Station India in July. At the same time of year in Station Juliet a flock of Common Terns arrived with the rain in the wake of a warm front.

Of the large numbers seen at Station India in August the observer was in no doubt that the majority were Arctic: about 25% of those seen near the ship were in full breeding plumage. Groups were mainly of from 4 to 12 individuals, but larger groups followed (feeding) behind schools of Whitesided Dolphins and Pilot Whales. On 28th August a long straggling group of 1000 plus birds flew past the ship – taking at least ten minutes to pass a fixed point. They (and about 400 Manx Shearwaters) appeared to be following Whitesided Dolphins and Pilot Whales to the westward.

LITTLE AUKS. 21st January, Station India. One in non-breeding plumage swam within 20 feet of the ship for several hours. On several occasions observed swimming under water (about 4 feet) right up to the ship's hull.

GUILLEMOTS. The Guillemots sighted at Station India in June were sitting on the water close to the ship (10 to 30 yards). All were in breeding plumage, and about a third were bridled.

Most of the species recorded at Station Alpha in February/ March were Brunnich's Guillemots. All were seen in breeding plumage: dull greyish-black above: bills blunter than those of the Common Guillemot, with horizontal pale line visible at close quarters; no trace of brown or bronze upperparts.

A distinctive directional movement was recorded during these observations, all birds moving from WSW towards ENE (i.e. South Greenland towards Iceland).

The following is a break-down of that movement:

25th February: one bird only at 1220.
26th: one at 1020, 2 at 1830.
1st March: 7 at 1310.
2nd March: peak movement between 1310 and 1345 when 3 groups of about 300 moved and 3 groups of about 50; often in long lines like Cormorants. None after 1430.
3rd March: majority (390) in groups of up to 90 birds moved between 1305 and 1340. A solitary group of 12 were seen at 1830.
4th March: majority (about 400) between 0930 and 1010. None after noon.
5th March: 75 from 1407 to 1706, very scattered – largest group of 14 at 1530.
6th March: nil.

RED-BREASTED MERGANSER. Stayed close to the ship for several hours – Station India. 16th July. Fulmars took no notice of it.

TURNSTONE. Seen to alight on the sea (state 3) astern of the ship for about a minute – Station India. 5th July. Took off again with no trouble and returned to the well-deck. It was seen to land on the water again later in the day for about 5–10 minutes.

OCEAN WEATHER SHIPS – STATION REPORTS OF LANDBIRDS

Analysis by Commander M. B. Casement, R.N.

The following reports have been received during the period 1973–74 (up to 1 September 1974).

STATION INDIA (Position 59°00′N 19°00′W)

1972	*O.W.S.*	*Pages*	*Observer(s)*
27–28 Oct	Weather Adviser	1	S. J. Whitelock
1973			
6–26 May	Weather Adviser	4	P. Rule
16 July–7 Aug	Weather Monitor	1	A. W. G. John
12 Aug–3 Sept	Weather Adviser	6	T. D. Rogers
27 Sept–17 Oct	Weather Reporter	1	D. Ogle and R. B. Dyer
3 Nov	Weather Surveyor	1	R. C. Aran
10–30 Nov	Weather Adviser	1	T. D. Rogers
1974			
1–22 Jan	Weather Reporter	nil rpt	D. Ogle and R. B. Dyer
31 Mar	Weather Monitor	1	P. H. Hoare
3–20 May	Weather Surveyor	2	R. J. Burness and M. Allwright
23–26 June	Weather Monitor	1	J. H. Halls
3–29 Aug	Weather Monitor	1	P. H. Hoare and J. H. Halls

STATION JULIET (Position 52°30′N 20°00′W)

1973	*O.W.S.*	*Pages*	*Observer(s)*
7–30 Aug	Weather Reporter	—	D. Ogle and R. B. Dyer
7–13 Sept	Weather Surveyor	3	R. C. Aran
24 Sept–17 Oct	Weather Surveyor	14	T. D. Rogers
24 Oct–3 Nov	Weather Monitor	1	P. H. Hoare
14 Nov–5 Dec	Weather Reporter	—	D. Ogle and R. B. Dyer
1974			
16 Feb–9 Mar	Weather Reporter	nil rpt	D. Ogle and R. B. Dyer
24 Mar	Weather Surveyor	1	R. J. Burness and M. Allwright
18–21 April	Weather Adviser	1	T. D. Rogers
12–17 May	Weather Monitor	2	P. Hoare
30 July	Weather Adviser	1	B. P. Cooper and N. E. Marks
2–25 Aug	Weather Surveyor	1	M. Allwright

No reports were received this year from Station Alpha (position 62°00′N, 33°00′W). Details are shown in the following tables for all observations recorded on station; records made on passage are included in tables for sea passage reports.

Abbreviations used in the tables:

Wind force expressed in Beaufort scale, or in knots where shown
D - Died
S - Settled onboard (duration)
C - Circled–did not settle
X - Examined in the hand
BM - Corpse sent to British Museum
NR - Not recorded

Latin names are shown only for the first occasion in each table.

OCEAN STATION INDIA

1972

Date		*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Oct	27	NR	Starling (*Sternus vulgaris*)	E/3	S 1 day
			Purple Sandpiper (*Calidris maritima*)		S 2 days. D?
			2 Redwing (*Turdus iliacus*)		One died after 2 days, the second after 3
			Snow Bunting (*Plectrophenax nivalis*)		S 1 day
	28	NR	2 Dunlin (*Calidris alpina*)	SW/6	S 2 days. 1 seen to fall into sea.
			Snow Bunting		S few hours

1973

May	6	1000	Wheatear (*Oenanthe oenanthe*)	NE/3 5nm	S 2 hrs
		1030	Golden Plover (*Charadrius apricarius*)		S several days
	7	1200	2 Wheatear	SW/3 5nm	S
	14	1645	Whimbrel (*Numenius phaeopus*)	W/4 5nm	C 40 mins
	17	am	House Martin (*Delichon urbica*)	E/3 2nm	S until night 18/19. V weak
		pm	4 House Martin Swallow (*Hirundo rustica*)	E/3 2nm	C 1 hr
	19	1750	Brent Goose (*Branta bernicla*)	E/6 5nm	Swam close alongside for 35 mins
	23	am	Purple Sandpiper	NE/4 5nm	S several hours
			10 House Martins	NE/4 10nm	C all forenoon
			Sandmartin? (*Riparia riparia*)		One "sandy coloured" bird reported amongst the other Martins
		0930	Meadow Pipit? (*Anthus pratensis*)		See onboard briefly
	26	1400	Wheatear	SE/2 10nm	

OCEAN STATION INDIA 1973 (*continued*)

Date		*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
July	16	pm	Red-Breasted Merganser (F) (*Mergus serrator*)	NW/4	
	19	1000 1200	Redshank (*Tringa totanus*)	ENE/2 Fog until 1100	S 2 hrs
Aug	4	1030	Turnstone (*Arenaria interpres*)	SW/3 Dep N	
	5	1445	Turnstone	SE/2	S until released in Clyde 11 Aug
		1600	3 Turnstone	SE/2	Flying N
		1800	Oystercatcher (*Haematopus ostralegus*)	E/3	
	7	0910	3 Curlew/Whimbrel 10 Godwit Sp	WNW/2	Arr from N flying S
	12	1500	Turnstone	S/5 2nm	C
	13	1140	Grey Phalarope (*Phalaropus fulicarius*)	SW/4 10nm	Very close 2½ hrs. Mobbed by Kittiwakes. Partial breeding plumage
	14	0725	3 Turnstone	S/2 10nm	C close
	15	1735	Willow Warbler (*Phylloscopus trochilus*)	S/33 5nm	D. X.
		2330	Phalarope Sp	Calm 5nm	C 40 mins
	18	0932	Pied White Wagtail (*Motacilla alba*)	N/4 10nm	Arr NW flew past heading SE
	19	2320	Phalarope Sp	NE/3 20nm	Seen in lights from balloon shed
	20	1110	Turnstone	110/15kt 20nm	Dep S
	25	0740	3 Turnstone	160/7kt 20nm	
	26	0640	Knot (*Calidris canutus*)	170/22kt 600yds	S 40 mins
		0928	2 Whimbrel	230/13kt 10nm	Flying SW calling
	27	1410	29 Turnstones	240/20kt 20nm	Arr from N. C. Dep E
	28	0722/32	2 Dunlin	170/23kt	Two seen singly
		1802	Phalarope Sp (prob. Red-Necked (*Phalarope lobatus*))	220/22kt 20nm	S water ½ min. Dep E
	29	1357	Dunlin	270/28kt 5nm	C 2 mins (close)
		1500	Phalarope Sp	270/28kt 5nm	Settled on water

WEATHER SHIP OBSERVATIONS - 1973 - SEABIRD T

Feb 19 Mar 14 24 days	April 8 May 3 26 days	May 4 May 24 21 days	July 13 Aug 6 25 days	Aug 7 Aug 30 24 days	Sept 1 Sept 21 21 days	Sept 23 Oct 19 27 days
17	4110 (4b) avd 158	27150 avd 1294	1415 avd 57	5860 avd 244	147 avd 7	1283 (11b) avd 48
—	1	6	266	5495	856	5884
—	—	—	—	—	12	—
—	—	—	25	125	9	31
1	180	3	—	—	13	5
—	—	—	—	—	15	454
—	—	1	1	—	—	—
—	—	—	1	—	5	21
3	78	194	18	1	—	13 (3i)
25	62	164	6	27	4	58
—	13	127	—	—	1	34 (13i)
—	11	59	2	—	3	8 (3i)
—	—	4	—	—	1	4 (i)
—	—	—	—	—	—	—
—	2 (i)	—	—	—	—	3 (2i)
—	8	11	—	1	—	—
2	111	887	2	217	13 (5i)	—
4 (2i)	4 (i)	386	—	81	59 (56i)	2 (1i)
—	—	—	—	—	—	3 (i)
—	—	—	—	—	—	—
1842 (167i) avd 77	7535 (4610i) avd 290	13600 avd 648	16	162 avd 7	10	242 (175i) avd 9
—	—	—	—	—	—	—
—	11	—	—	—	—	17 (11i)
—	—	—	—	18	23 (A)	37
10	18	—	20 (1C)	—	—	—
—	—	1 (R)	—	—	—	—
2	48	—	—	—	—	2
—	—	—	—	—	—	—

OCEAN STATION INDIA 1973 (*continued*)

Date		*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Nov	3	1100	Fieldfare (*Turdus pilaris*)?	NW/3 10nm	C
	13	1445	Purple Sandpiper	300/22kt 10nm	C briefly
	17	1140	Redwing (*Turdus iliacus*)?	170/27kt 5nm	C
	20	1115	2 Eider (*Somateria mollissima*)	230/15kt 3nm	1(M) + 1(F). Adult plumage. Arr E. Duck remained 2 hrs. Both dep SW
	21	1115	Fieldfare	270/24kt 10nm	S 1 hr. Tired
	22	1100	Purple Sandpiper	330/18kt 5nm	S 15 mins.
	24	1330	Purple Sandpiper	080/20kt 5nm	C 1 hr
	30	1330	3 Duck Sp (Teal: *Anas crecca*?)	240/14kt 3nm	Small. Flew past very rapidly heading E
			1974		
Jan	1–22		Nil		
Mar	31	early am	Redwing	SE/7 decreasing	Stayed until 2 April when wind changed S/6–8
May	3	1130	Fieldfare	030/20kt	S. Exhausted. Dep SW. Chased by Kittiwakes
	7	0800	Dunlin	080/11kt	Arr NE flew past heading SW
		1300	Oystercatcher	130/10kt	C
	9	1100	2 Meadow Pipit	150/13kt	S. 1 caught but D next day
		1400	Turnstone	140/16kt	S. In moult
	10	1600	Redwing	010/20kt good vis.	
	12	0120	Dunlin	190/15kt	S. Both in moult
		0900	Dunlin		Took food. One died later
		1000	Short-eared Owl (*Asio flammea*)	170/13kt	
		1100	Wheatear	170/13kt	S. Shy
	15	0700) 1000) 2100)	3 Swallow	160/15kt	S. Arrived singly, all emaciated. One died soon. One died 18th despite forced feeding
	17	0600	Swallow	120/25kt good vis	
	20	1400	Swallow	220/27kt	Found dead

June	23	0660	Swallow	ExS/5 poor vis. 8/8 St	S. Died after 36 hrs
	26	0900	Turtle Dove (*Streptopelia turtur*)	ENE/4 good vis 8/8 Sc	S 6¼ hrs
Aug	12	1500	Tree Pipit (juv) (*Anthus trivialis*)	ENE/5 good vis	S 24 hrs. D. BM
	14	2100	2 White Wagtail (juv) (*M.a.alba*)	NE/4 good vis	One flew off after 24 hrs. Other stayed taking food but died on 24th
	22	1000	2 Wheatear (1F + 1M?)	WNW/4	S 36 hrs. Tended to be driven off by Wagtail which had established its territory
	26		Wheatear	NR	Landed several times but never stayed long

OCEAN STATION JULIET

1973

Date		*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
The following birds were reported without further details during the period 7-30 Aug.					
Aug	19		White Wagtail Meadow Pipit		
	20		White Wagtail Tree Pipit		
	21		White Wagtail		
	22		2 House Martin		
	27		2 House Martin		
	30		1 House Martin		
Sept	7	1830	6 Wheatear	ESE/1 200yds (mod rain) wind SE/4 8th SE/4 9th E/3 10th	S. Arr from E suddenly after 6 hrs continuous mod. rain 2 D 9th. BM. 1 D 10th
	10	1730	Grey Phalarope?	E/3 700yds in fog	Arr from E, circled, dep W
	11	0600	Dunlin	E/4 300yds in fog	S. In moult. Damage to left eye due hitting superstructure

OCEAN STATION JULIET 1973 (*continued*)

Date	*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Sept. 11	1100	Kestrel (*Falco tinnunculus*)	E 3 600yds in fog	Seen in flight from 10ft. C 3-4 hrs
	2000	Skylark (*Alauda arvensis*)	E/3 600yds	S. Killed by cat. BM
13	0520	3 Meadow Pipit	NE/3 600yds	S 3 hrs
24	1230	3 Phalarope Sp	230/16kt 20nm	Flew past heading SW. Winter plumage
27	0730	2 Grey Phalarope	280/17kt 10nm	Settled on water 15yds. Sturdy bill
	0805–1750	9 Phalarope Sp	270/29kt 5nm	Groups 1–3 arr from N heading W
	0940	Peregrine Falcon (*Falco peregrinus*)	250/18kt 5nm	S until 28th. Chased Wilson Petrels
	1034	Lapland Bunting (*Calcarius lapponicus*)	240/22kt 10nm	Flew past. Call heard
28	1715	Phalarope Sp	310/28kt 20nm	Feeding in wake of ship
29	1440	Phalarope Sp	320/13kt 20nm	Flew past heading SW
Oct 1	1400	Phalarope Sp	200/9kt 1nm	
	1710	Lapland Bunting	220/10kt 2nm	C 40 mins
2	0840	Common Scoter (F) (*Melanitta nigra*)	200/13kt 10nm	C several times
	0855) 1610)	Phalarope Sp	210/13kt 10nm	Two singles. Dep SW
3	0616	Turtle Dove (juv)	190/12kt 10nm	S. Caught. Released 5th. X. Wing 174mm
	1120	Ruff (*Philomachus pugnax*)	150/9kt 20nm	C
4	1115	Phylloscopus Sp Chiffchaff?	060/5kt 2nm	S briefly
	1346	2 Goldcrest, 1M, 1F (*Regulus regulus*)	090/7kt 10nm	S 25 mins
	1730	Song Thrush (*Turdus philomelos*)	040/6kt 10nm	C 5 mins
5	0730	Song Thrush	290/4kt 5nm	S. Weak. D next day
	1145	Common Scoter (M)	Calm 5nm	Swimming/diving at distance
8	0902	Snow Bunting	220/10kt	Did not settle. Dep NE
	1230	Blackcap (F) (*Sylvia atricapilla*)	220/6kt 1nm	S 2 hrs. Shy

10	0906	11 Starling	100/20kt 2nm	S 1 hr
	0745–1400	6 Meadow Pipit	100/20kt 2nm	Groups, 2, 3, 1. Some settled short periods
	1245	Brambling (*Fringilla montifringilla*)	100/20kt 2nm	C few minutes with Meadow Pipit
	1345	Wheatear		C 30 mins. S few mins
	1400	Brambling		C few mins
	1411	Blackcap (F)		S 1 hr
	1502	Oystercatcher	100/20kt 2nm	C
	1720	Merlin (*Falco columbarius*)		Arr from E. 1730. Caught Song Thrush and plucked it on the wing. Ate little and dropped it at 1739. Near ship for 26 mins but did not land
	1723	Song Thrush		Killed by Merlin. Finally dropped and set upon by Fulmars
11	1620	Bunting Sp Reed? (*Emberiza schoeniclus*)	080/29kt 1nm	C 45 mins. Did not call. Could have been Lapland
	1646	Dunlin?		Flew straight past heading W
	1725	Garden Warbler (*Sylvia borin*)		S. Tired. D 12th. X. Weight 11g at death. Wing 75mm. Bill to skull 14mm. Tarsus 19mm. Tail 50mm
12	0740	2 Starling	090/20kt 2nm	S until 16th. Fed
	0810	4 Meadow Pipit	070/22kt 2nm	S. D 13th. Wt. at death 13g. Wing 78mm. Tarsus 23mm. Hind claw 13mm. One dep W
	0850	Phylloscopus Sp?		C
	0850	Garden Warbler?		C several mins
	0927	Redwing		C 30 mins
	0936	Skylark	080/20kt 2nm	C 9 mins
	1220–1615	3 Song Thrush	060/20kt 2nm	Two flew past. One S 1 hr
	1250	Golden Plover (*Pluvialis apricaria*)	060/15kt 2nm	C 1 hr+
	1621	Redwing		C few mins
	1630	Golden Plover	060/18kt 2nm	C briefly
	1639	Wheatear	060/15kt 2nm	F ew past W
	1755	Dunlin	060/15kt 2nm	C close 5 mins

OCEAN STATION JULIET 1973 (*continued*)

Date		*Time arr GMT*	*Species*	*Wind, weather, vis*	*Remarks*
Oct.	13	1015	Meadow Pipit	100/18kt 5nm	C 5 mins
		1220	Snow Bunting	100/13kt 5nm	Flew past
		1225	Kestrel (F)	100/13kt 2nm	S until 14th. Tired
		1300	Knot (*Calidris canutus*)		C 5 mins
		1356	Song Thrush	120/13kt 1nm	Flew close, heading W
		1420	Starling	1nm	Distant. Flying W
		1435	Skylark	1nm	Flew close. Very low
	14	0855	Redwing	050/17kt 5nm	S 10 mins
		1000	2 Redwing		C, pursued by Kittiwakes
		1330	Redwing		S 5 hrs
		1415	Dunlin	030/16kt 2nm	S. Caught 15th, weak. Fed. Released in Clyde 22nd. Wt. on capture 26g. Wing 112mm
		1630	Garden Warbler	060/18kt 2nm	S few mins
	15	1120 and 1200	2 Phalarope Sp	040/20kt 10nm	One settled few mins. Dep SW
		1322 and 1505	2 Snow Bunting	340°/18kt	One flying S. One S few mins, dep SE
		1602	Phalarope Sp	330/16kt 10nm	Settled on water few mins
	17	1000	Wheatear	320/12kt 10nm	S few mins
	24	1500	2 Turnstone	200/4kt	C several times
	29	1630	Kestrel (F)	140/15kt good vis	C 5 mins. Dep NW
	30	0510	Meadow Pipit	150/20kt mod vis	S 30 hrs. D. BM
		1500	Turtle Dove	160/22kt mod vis	C few mins
Nov	3	0930	Bunting Sp	020/22kt	S. Caught and released. X. Prob. Reed Bunting (F)
		1700	Wader Sp Purple Sandpiper		Seen briefly
Dec	4	NR	Dunlin	NR	

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis. etc.*
16 Feb–9 Mar		NIL report		
Mar 24	0730	Blackbird (M) (*Turdus merula*)	140/9kt	S
	1430	Meadow Pipit	190/7kt	S. Emaciated. D
April 21	1220	Tufted Duck (M) (*Aythya fuligula*)	150/6kt	Swimming close (1½ hrs). Nibbled at bread thrown to it
May 12	1200	Turnstone?	350/25kt good vis	Passed close
13	1000	Whimbrel	260/20kt good vis	S
14	1700	Swallow	SE/4–6, rain, poor vis	S. D 12 hrs. No food taken
17	1200	4 Dunlin	290/15kt good vis	S 48 hrs. 3 D (24–36 hrs)
	1400	Wheatear (M)	270/14kt	S 48 hrs
July 30	1800	Purple Sandpiper	360/10kt good vis	S. Food taken
Aug 14	0720	Wheatear	140/11kt good vis	S all day
15	0100	Grey Wagtail (juv) (*Motacilla cinerea*)	040/4kt showery, good vis	S. Caught, but escaped 1200

SUMMARY OF LANDBIRDS EXAMINED IN THE HAND 1973/74

The following records of landbirds examined in the hand were received during the period (up to 1 Sept. 74). Reference is made to them in the relevant analysis of Ocean Weather Ship Station reports and Sea Passage reports.

Key to abbreviations:

S – Stayed onboard (duration)
R – Released
D – Died onboard (duration)
BM – Corpse sent to B.M.
P – Photographs taken
NR – Not recorded

M – Male
F – Female
Juv – Juvenile
A – Adult
nm – vis in nautical miles

1973

Species (sex)	*Observer/Ship*	*Arrival date/time*	*Lat./ Long.*	*Sea Area of nearest land*	*Wind, weather, vis*	*Remarks*
1. Turnstone (*Arenaria interpres*)	A. W. G. John OWS Monitor	5 Aug	59°00′N 19°12′W	S. Iceland 230′ (Station India)	140/2	S 6 days. Wt. on capture 96g. Released Clyde at 87g
2. Reed Warbler (*Acrocephalcus scirpaceus*)	A. van Gaans, Dutch M.N. M.V. 'Blommendal'	16 Aug	53°52′N 03°17′E	North Sea N. Holland 60′	NW/3 3/8 cloud Good vis	S 1 day. Ringed and released
3. Wilson's Warbler (M) (*Wilsonia pusilla*)	NR M.V. 'Bamburgh Castle'	25 Aug	52°N 42°W	060° Newfoundland 520′	NR Cloudless Good vis	D 1 day. BM
4. White Wagtail (*Motacilla alba*)	Capt. K. Salwegter Dutch M.N. M.V. 'Amstelhof'	30 Sept	38°55′N 118°03′E	Gulf of Chihli 15′E of Tientsin	NR	Found dead

5.	Yellow Wagtail (*Motocilla flava*)	Capt. P. W. G. Chilman M.N. S.S. 'Marisa'	28 Oct 1700	38°54′N 00°43′E	W. Med 17′ Spain	SSW/3 V.g. vis	Active on arrival. D 29th
6.	Meadow Pipit (juv) (*Anthus pratensis*)	Capt. P. W. G. Chilman M.N. S.S. 'Marisa'	29 Oct	36°14′N 04°08′W	W. Med 29′SE Malaga	Light airs 2/8 Cu. V.g. vis	D 30th
7.	Meadow Pipit (A)	Capt. P. W. G. Chilman M.N. S.S. 'Marisa'	1 Nov 1000	22°00′N 18°00′W	E. Atlantic 52′W Spanish Sahara	NNE/3 bc V.g. vis	S 7 hrs+
8.	Swallow (juv) (*Hirundo rustica*)	Lt. C. A. Howeson, R.N. H.M.Y. 'Britannia'	26 Nov	12°18′N 72°30′W	Caribbean 18′C. La Vela 140°	E/18kt 2/8 Good vis	D. P.

1974

1.	Swallow (*Hirundo rustica*)	Capt. P. W. G. Chilman M.N. S.S. 'Megara'	30 April 1500	21°28′N 123°52′E	Pacific Formosa brg 279° 175′. 192′N of Luzon	Light airs 8/8 cu nim Heavy rain poor vis	One of 6. S. D 1 May
2.	Meadow Pipit (*Anthus pratensis*)	M. Allwright	9 May	59°01′N 19°04′W	Station India S. Iceland 240′	S/E3–4 Low cloud Good vis	Emaciated. S 2 hrs
3.	Swallow (*Hirundo rustica*)	M. Allwright OWS Surveyor	15 May	59°04′N 19°22′W	Station India	160′/15kt Overcast. Poor vis	S 12 hrs
4.	Swallow (*Hirundo rustica*)	J. H. Halls OWS Monitor	23 June	59°04′N 19°43′W	Station India	ExS/5 8/8 St Poor vis	D 36 hrs
5.	Purple Sandpiper (*Calidris maritima*)	B. P. Cooper/N. E. Marks OWS Adviser	30 July	52°30′N 19°24′W	Station Juliet 400′W Ireland	360/10kt 7/8 cloud	D 2 days

M. B. C.

LANDBIRD SUMMARY

By Commander M. B. Casement, R.N.

The tables in this issue reflect in particular the wealth of material and the high standard of reporting that we have come to expect from the Ocean Weather Ships, but also a marked increase in reports of interest from Merchant Ships in unusual parts of the world as gleaned from their Meteorological Logs.

As can be seen from the Station Reports and also from Tables C and D, the pattern in the Eastern Atlantic is broadly similar to that in *Sea Swallow* 23 and most falls of birds occur both in spring and autumn during periods of easterly winds. However, the spring passage of Hirundines at Station India (mainly House Martins in May '73 and Swallows in May '74) was not recorded in '72. These occurred in easterly winds with poor visibility. Another noticeable feature is the start in early August of the Wader migration (mainly Turnstones, Whimbrel, and Phalaropes).

The Eastern Atlantic is an area of special interest to me and others studying the possibility of long-distance migration from Iceland and Greenland. The birds' survival must depend very much on the weather pattern throughout their flight and the degree to which the wind shortens or lengthens their journey. Northern races of birds such as Wheatears, and Redwings, tend to be both larger and heavier than southern races so accurate measurements and weights of all such birds that are caught onboard can provide valuable clues as to their source of origin, i.e., Scandinavia or Iceland/Greenland.

The weight of a bird is also a good measurement of its physical state and therefore the length of flying time before capture. Most birds tend to take on large amounts of fuel reserves as fat before departing on a long migratory journey: small Warblers, for example White-throats (*Sylvia communis*), can almost double their body weight before crossing the Sahara. It would be helpful therefore if observers could take advantage of all opportunities to record weights of birds caught and include this data in their reports. It is well worth while for keen observers to invest in accurate spring balances for this purpose. These are obtainable through the British Trust for Ornithology and anyone requiring advice should write to me.

It would also be helpful for understanding the weather pattern giving rise to unusual records of bird migration if a simplified map of the weather situation over the preceding two or three days could be included with such reports. Observers from the Ocean Weather Ships may find it feasible to do this, and they will be studied with interest.

Meticulous records over the years will help to build up the overall picture and settle for example the argument whether birds such as Wheatear (*Oenanthe oenanthe*) can migrate direct from Iceland to West Africa.

Another picture which is beginning to emerge is the extent to which Falcon species are regularly recorded on long migrating journeys over the sea. This analysis includes Kestrels regularly off the West Coast of Africa (Table C) and also a Lanner Falcon. Peregrines are seen widely throughout the world, and in the Indian Ocean (Table H) there are records of Red-footed Falcon, Osprey and Hobby. These species may well depend on catching small possessive migrants for food on the way. It is well known for example that the timing of the Merlin's arrival in the Faeroes from Iceland coincides with arrival of Wheatears, and there are numerous examples over the years of Peregrines and Kestrels preying on exhausted migrants onboard ships but of special interest is the record of actual "in-flight refuelling" by a Merlin at Station Juliet on 10 October '73.

The only similar record I know is of a Kestrel (*Falco tinnunulus*) I saw myself in September '64 in the Ionian Sea (Mediterranean) but I did not observe it actually eating on the wing.

The other family which is reported widely throughout the world are the Hirundines (Swifts, Martins and Swallows). From Table C there are indications of a movement of Swallows on 5 March '73 100 miles North of the Canaries, and from Table H a large passage of Swifts across the Straits of Hormuz on 5 March '74. Most remarkable of all must surely be the report on 12 April '73 (Table C) of the unidentified Swifts almost mid-way between South America and South Africa. What on earth were they doing there?

My thanks to all those contributors to this issue and good bird watching to you all for 1975.

M. B. C.

SEA REPORT SHEETS

Analysis by Commander M. B. Casement, R.N.

The following reports of Landbirds at sea were received during 1973/4 up to the period ending 1 September 1974

1973

(1) *Observer/Ship*	(2) *Passage*	(3) *Date*	(4) *Reference*	(5) *Sea Areas*
1. Capt. D. W. Luff S.S. 'Brandon Priory'	W. Australia to Persian Gulf	18 April	A	Indian Ocean
2. Capt. P. W. G. Chilman S.S. 'Mytilus'	Gothenburg to Persian Gulf	3–10 June	B	N. Sea, English Channel, Biscay, E. Atlantic (W. Africa)
3. 2/O R. W. Joughin M.V. 'Drina'	London to Rio	9 July	C	E. Atlantic (W. Africa)
4. Lt. M. K. Barritt, R.N. H.M.S. 'Arethusa'	Iceland Patrol	14 July–1 Aug	D	N. Atlantic
5. Ch. Officer W. C. W. Price S.S. 'Mobil Daylight'	Marseille to Trieste	20–22 Oct	E	Med.–Adriatic
6. Capt. K. Salwegter M.V. 'Amstelhof'	Portland (U.S.A.) Chingangtao-China	14–30 Sept	F	E. Pacific, Behring Sea, Yellow Sea
7. Lt. M. K. Barritt, R.N. H.M.S. 'Hydra'	Fiji to Sydney, N.S.W.	2 Oct	G	S. Pacific (West)
8. Lt. M. K. Barritt, R.N. H.M.S. 'Hydra'	Sydney to Singapore	14 Oct	H	S. Pacific (West)
9. Capt. K. Salwegter M.V. 'Amstelhof'	Japan to Australia	26–30 Oct	I	Pacific (West)
10. Capt. G. H. Phillips M.V. 'Lagos Palm'	Lagos to U.K.	17–22 Nov	J	E. Atlantic (W. Africa and Iberlant
11. A. B. J. Booth M.V. 'Arctic Troll'	E. coast U.S.A.	25 Sept	K	W. Atlantic

12. Capt. P. W. G. Chilman S.S. 'Marisa'	Arabian Sea–Persian Gulf	2 July–25 Aug	L	
13. Capt. P. W. G. Chilman S.S. 'Marisa'	S. Spain to Persian Gulf	28 Oct–6 Nov	M	Med., E. Atlantic (W. Africa)

1974

(1) *Observer/Ship*	(2) *Passage*	(3) *Date*	(4) *Reference*	(5) *Sea Areas*
1. Capt. R. R. Will M.V. 'Rotherwick Castle'	Hamburg to Port Elizabeth	1 April	A	E. Atlantic (W. Africa)
2. Capt. R. R. Will M.V. 'Rotherwick Castle'	Laurence Marques to Antwerp	14–15 May	B	E. Atlantic (Iberlant), Biscay
3. Capt. K. Salwegter M.V. 'Voorne'	Balbao to Tsingtao	22–29 April	C	E. Pacific
4. A.B. M. F. Holloway H.M.S. 'Endurance'	Falkland Is. to Montevideo	7 April	D	W. Atlantic
5. A.B. M. F. Holloway H.M.S. 'Endurance'	Buenos Aires to Santos	18 April	E	W. Atlantic
6. Capt. P. W. G. Chilman S.S. 'Megara'	Persian Gulf area	25 Mar–22 April	F	Persian Gulf
7.				

Notes: 1 The reference letter shown in column 4 is used for brevity and ease of cross-referencing into the analysis tables for the relevant year. Example: 1974 Capt. Chilman – Persian Gulf area 25 Mar-22 April Sea Table H reference F.

2 The dates and sea areas shown in columns 3 and 5 are relevant only to significant landbird observations recorded on passage.

ANALYSIS BY SEA AREAS

This analysis includes records received from the following sources:

a) R.N.B.W.S. Sea Report sheets (Landbirds) – indicated by reference letters

b) Meteorological Log Returns (identifiable species only) – indicated by MET.

c) OWS reports on passage – indicated by "OWS" followed by initials of observers.

The observations are analysed in the following tables by sea areas:

Table A E. Atlantic (Biscay)
B E. Atlantic (Iberlant) – C. Finisterre to Gibraltar
C E. Atlantic (W. Africa) – Gibraltar to Cape of Good Hope
D N. Atlantic (North of 51°N)
E West Atlantic (West of 30°W and including Caribbean and Gulf of Mexico)
F North Sea and English Channel
G Mediterranean and Adriatic
H Indian Ocean, Red Sea and Persian Gulf
I Pacific and S. China Sea

TABLE A

EAST ATLANTIC (BISCAY)

1973

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
8 Aug Noon	MET	Redshank (*Tringa totanus*)	48°42′N 09°40′W 100′SW Scillies	M.V. *Sugar Exporter* (Sugar Line Ltd). Flying N
14 Oct 9030Z	MET	Lark Sp. (*Alauda arvensis?*)	46°16′N 7°18′W 170′SW Ushant	M.V. *City of Liverpool* (Ellerman City Line). Capt. J. I. Owen. Bad weather. D 12 hrs

1974

5 June 1605	B	Turtle Dove (*Streptopelia turtur*)	45°36′N 08°09′W 100′N C. Ortegal	NE/5 bc

TABLE B

EAST ATLANTIC – FINISTERRE TO GIBRALTAR (IBERLANT)

1973

22 Nov	J	Grey Wagtail (juv) (*Motacilla cinerea*)	41°45′N 10°30′W 80′SW Finisterre	S
		Starling (*Sturnus vulgaris*)		S

1974

14 May	B	Woodchat Shrike (*Lanius senator*)	38°30′N 11°30′W 100′W of Lisbon	S 2 hrs. Vis 10m

TABLE C

EAST ATLANTIC (WEST AFRICA) – GIBRALTAR TO CAPE OF GOOD HOPE

1973

5 Mar pm	MET	20+ Swallow (*Hirundo rustica*)	30°22′N 14°30′W 100′N of Canaries	M.V. *Clan Grant* (Cayzer Irvine & Co). Capt. S. Hay. About 20 spent night sheltering in recreation space huddled on top of dartboard cabinet

ANALYSIS BY SEA AREAS—TABLE C 1973 (*continued*)

Date (*local time*)	*Ref.*	*Species* (*Latin name*)	*Lat. & long.* (*nearest land*)	*Remarks: wind, weather, vis, etc.*
6 April 1800Z	MET	Scops Owl (juv) (*Otos scops*)	31°15′N 10°55 W 60′W Morocco	M.V. *Hazelmoor* (Runciman Shipping Ltd). S 1 day. Released near Fuerteventura
		Swallow		Numerous
		Bee Easter (*Merops apiaster*)		S briefly
12 April 0300–0100	MET	6 Hirundines Alpine Swift? (*Apus melba*)	4°12′N 23°48′W 300′NE St Paul Rocks over 600′SW Sierra Leone. Over 800′NE Brazil	M.V. *British Commodore* (BP Tankers). Capt. E. Henderson. Appeared to arrive from E, circled 30 mins and dep Westwards
30 April 1000	MET	Green Heron? (*Buterides virescens*)	17°15′S 14°30′W S. Atlantic. 550′W St Helena	S.S. *Mahseer*. Capt. P. A. Gunson. Last port Trinidad
7 June 1030	B	2 House Martin (*Delichon urbica*)	34°54′N 13°07′W 230′NW Morocco	One S 6½ hrs. N x E/4 bc
9 June 1550	B	Kestrel (F) (*Falco tinnunculus*)	19°55′N 18°12′W 100′W C. Blanco	S 2½ hrs. NNE/5. Overcast
10 June 1240	B	Swallow	14°04′N 18°16′W 45′SW C. Verde	S 40 mins. N/5 bc
10 June 1645	B	Turtle Dove (*Streptopelia turtur*)	12°51′N 18°16′W 70′SW Bathurst	S. NW/4 bc
		Namaqua Dove (M) (*Oena capensis*)		S
12 June 0930Z	MET	House Martin	29°51′N 15°33′W 30′W Canaries	M.V. *City of Liverpool* (Ellerman Lines). S several hours
9 July	C	Racing Pigeon	33°24′N 13°27′W 180′E Madeira	S 4 mns. NNW/4
12 Aug 1000Z	MET	Canary (*Serinus canaria*)	21°03′N 18°00′W 40′W C. Blanco	M.V. *Turkistan* (P. & O.). S 1 day+. Prob. arrived passing Gran Canaria on 11th
16 Aug 0900Z	MET	Hoopoe (*Upupa epops*)	17°18′N 17°30′W 31′W Senegal	S.S. *Esso Mercia* (Esso Petroleum Co.)

4 Sept 0700	MET	Grey Heron (*Ardea cinerea*)	13°10′N 18°15′W 70′W Gambia	S.S. *Mataura* (P. & O.). S. Dep Eastwards
18 Oct 1100Z	MET	Kestrel (F)	19°00′N 17°48′W 70′SW Mauretania	M.V. *City of Liverpool*. Capt. J. I. Owen. S 12 hrs
30 Oct 1640–1800	M	White Throat (*Sylvia communis*) Black Cap (M) (*Sylvia atricapilla*) House Martin Wheatear (*Oenanthe oenanthe*) 2 Song Thrush (*Turdus ericetorum*) 1 Warbler Sp.	31°19′N 11°47′W 120′W Morocco Coast	S. Light airs, blue sky S Flying round ship S S S
31 Oct 1630–1800	M	Swallow	26°38′N 15°53′W 70′S of Canaries	S. NNE/3 b
1 Nov 1000–1040	M	Turtle Dove	22°00′N 18°00′W 52′W of Spanish Sahara	S. NNE/3 bc. One possibly from yesterday
8		3 Swallow 1 Meadow Pipit (*Anthus pratensis*) Short-eared Owl (*Asio flammeus*) Rock Sparrow? (*Petronia petronia*)		S 7 hrs+. X S. Caught and ate Red-necked Phalarope S. Prominent pale eyebrow, dark line through eye
1415–1435		Kestrel (F) 5 Swallow Garden Warbler? (*Sylvia borin*)	21°06′N 18°01′W 45′W C. Blanco	S. Ate small Warbler. NNE/2 bc S. Probably included 3 from a.m. S. Not positive
1600–1750		2 Kestrel (F)	20°34′N 18°01′W 50′SW C. Blanco	S. until dark. NNE/2 bc
2 Nov 0700–0800	M	3 Kestrel (F) 3 Swallow	17°24′N 18°06′W 100′W Senegal	S. N/2 bc S (one until 1630). Probably remaining from yesterday
3 Nov 0620–0800	M	Turnstone (*Arenaria interpres*)	12°00′N 18°00′W 75′W Guinea Coast	N/3 bc. Flying N at 50 ft
1600–1800		Flycatcher Sp. Species?	09°36′N 17°09′W 100′SW Guinea Coast	S Light airs b. Characteristic flight. Insects onboard
6 Nov	M	Strike Sp.	04°02′S 06°30′W 500′S Ivory Coast	S 20 mms. SE/4 bc

ANALYSIS BY SEA AREAS—TABLE C 1973 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
17 Nov 1330Z	MET	Marsh Owl? (*Asio capensis*?)	8°19′N 25°13′W 400′S Cape Verde Is.	M.V. *Buenos Aires Star* (Blue Star Line). Capt. D. Gilmour
1 Dec 1630Z	MET	Small Passerine Quelea Sp?	1°05′N 10°22′W 220′SSW Liberia	M.V. *Clan Maclay* (Cayzer Irving & Co.). 2 S days
		1974		
22 Feb a.m.		Hoopoe	29°47′N 14°54′W 100′NNE Canaries	S.S. *British Bombardier* (BP Tankers)
1 April	A	2 Turtle Dove	26°04′N 16°03′W 80′NW Spanish Sahara	S all day. NNE/7
		3 Racing Pigeons		S until p.m. 2nd, and probably left when passing Cape Verde
10 May 1000Z		3 Night Heron (juv) (*Nycticorax nycticorax*)	19°00′S 5°46′E 350′W off SW Africa	S.S. *Jervis Bay* (Container Fleets Ltd.). Capt. L. E. Howell. Exhausted. S 5 hrs before dep.
14? July	MET	Lanner Falcon (*Falco biarmicus*)	25′ off Dakar (W. Africa)	M.V. *Elbe Ore* (Cayzer Irvine & Co.). S 6 hrs

TABLE D

NORTH ATLANTIC (NORTH OF 51°N)

1973

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
14 July 0800–1230	D	Whimbrel (*Numenius phaeopus*)	63°03′N 8°32′W 60°NW Faeroes	Arr from SW. Wind E/15kt. S 24 hrs
16 July 0400–0800	D	7 Eider (*Somateria mollissima*)	66°30′N 18°30′W 30′N of Iceland	Wind W/10kt. Flying in group W to E towards Grimsey Is.

29 July 1230–1600	D	2 King Eider (*Somateria spectabilis*)	65°58′N 24°25′W Denmark St. off NW Coast Iceland	Wind SW/5. 2 adult males flying ESE towards Iceland
30 July 1600–1800	D	22 Eider	12.5m N of Kaelavikurbjar N. Iceland	Adult males heading SSE towards the Horn. Wind W/1
1800–2000		5 Eider		
1 Aug 1800	D	Swallow (*Hirundo rustica*)	57°50′N 8°40′W off St Kilda	Wind SW/6. Dep S
3 Sept 1230	OWS TDR	Lapland Bunting (F)? (*Calcarius lapponicus*)	58°00′N 15°30′W 70′NW Rockall	S 10 mins, tame. Wind 230°/12kt. Vis 30nm
1400	OWS TDR	Oystercatcher (*Haematopus ostralegus*)	57°54′N 15°06′W 60′NW Rockall	C 1 hr. Wind 260°/10kt. Vis 30nm
1645	OWS TDR	Dunlin (*Calidris maritima*)	57°30′N 14°18′W 30′SW Rockall	Flew W to E, ht 30 ft. Wind 240°/10kt. Vis 10nm
4 Sept 0700	OWS TDR	Meadow Pipit (*Anthus pratensis*)	56°18′N 10°12′W 90′NW Tory Is.	C. Wind 270/6kt. Vis 5nm
0830		Reed Warbler (*Acrocephalus scirpaceus*)	56°12′N 09°48′W 70′NW Tory Is.	D few hours. X. Wing 69mm. Wind 300/8kt. Vis 5nm
1025–1300		c. 20 Meadow Pipit	56°00′N 09°00′W 50′NW Tory Is.	S. Small groups (max 9). Tired. One died (wing 85 mm). Several caught and released when in sight of land 2000. Two found dead a.m. 5th
1200		White Wagtail (*Motacilla alba*)	56°00′N 09°00′W 50′NW Tory Is.	Calm. Vis 3nm. S several hours until near coast N. Ireland
1125		Tree Pipit (*Anthus trivialis*)	56°00′N 09°12hr 75′SW Hebrides	S several times. With Meadow Pipits but call distinctive
10 Nov 1600	OWS TDR	Redwing (*Turdus iliacus*)	56°12′N 10°00′W 90′SW Hebrides	S 1 hr. V tired. Wind NW/30kt Vis 10nm
11 Nov 0945	OWS TDR	Snow Bunting (*Plectrophenax nivalis*)	57°12′N 13°18′W 40′SE Rockall	Flew past NW to SE. Wind 230/9kt. Vis 10nm

ANALYSIS OF SEA AREAS—TABLE D (*continued*)

1974

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
15 Mar 005Z	OWS TDR	Redshank (*Tringa totanus*)	55°26′N 06°54′W 10′N of Irish Coast	Found dead. Not there 1 hr before. Wing 160 mm. Wind S/14kt. Vis 3nm
0300–0100		6 Redwing	55°24′N 06°30′W off Rathlin Is.	C. Following ship's lights: call distinctive. Wind 190/16kt. Vis 5nm
2 April 1645	OWS TDR	Redwing	54°30′N 11°54′W 65′W of Ireland	C ½ hr. Wind SE/5. Vis 3nm
27 April 1535	OWS TDR	Chiffchaff (*Phylloscopus collybita*)	54°24′W 70′W of Ireland	S 3 mins. Dep W. Dark legs. Wind 100/10kt. Vis 10nm
13 June 1200Z	OWS MA/ RJB	Swallow (*Hirundo rustica*)	54°56′N 09°42′W 40′W of Ireland (just visible)	Arr from SE. Flew alongside. Wind 170/12kt
		2 Collared Dove (*Streptopelia decaocto*)		S few mins. Dep SE
9 July 1200Z	OWS MA/ RJB	Turtle Dove (*Streptopelia turtur*)	55°20′N 07°45′W 8′ NW Coast Ireland	S few mins. Dep S

TABLE E

WEST ATLANTIC

1972

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
29 Sept 2000	MET	Peregrine Falcon (*Falco peregrinus*)	38°40′N 50°55′W 580′SSW Newfoundland	M.V. *Orotava Bridge* (Oil Carriers Ltd.). S

10 May	MET	Yellow-Billed Cuckoo? (*Coccyzus americanus*)	16°15′N 84°00′W 30′NE Honduras	M.V. *Discoverer* (T. & J. Harrison Ltd.). Wind E/5. S 12 hrs
13 Sept 1500Z	MET	Cattle Egret (*Ardea ibis*)	14°07′N 77°30′W Caribbean 230′S. Jamaica	M.V. *Phemius* (Ocean Transport & Trading). Capt C. H. F. Hill
17 Oct	MET	Yellow-Throated Warbler (*Dendroica dominica*)	29°N 90°W Gulf of Mexico Entrance to Lake Charles Channel	M.V. *Markhor*. Capt. T. A. Gunson
		Yellow-Shafted Flicker (*Colaptes auratus*)		Mr P. N. Gunson. S 5 mins S 15 mins
18 Oct 1000–1100	MET	Egret Sp	26°45′N 91°03′W 140′S Louisiana	M.V. *Markhor*. Flock flying N
		2 Swift Sp. (prob. *Chaetura vauxi*)		
19 Oct 0800	MET	2 Egret Sp. (prob. *Leucophoyx thula*)	23°40′N 86°42′W 120′NE Mexico	M.V. *Markhor*. Flying NE
1400		Barn Swallow/Cliff Swallow (*H.rustica* or *Petrochelidon pyrrhonota*)	22°40′N 85°45′W 75′NW Cuba	
		Palm Warbler (*Dendroica palmarum*)		S 6 hrs+. White underside – yellow under tail — therefore probably Western subspecies
20 Oct	MET	3 Great Blue Heron (*Ardea herodias*)	20°50′N 82°25′W 30′S Cuba	Heading NE
		Egret Sp (prob. American Egret) (*Casmeroidus albus*)		Circling 45 mins.
0955		Peregrine Falcon (*Falco peregrinus*)	20°40′N 81°55′W 60′S Cuba	Brief visit, returning at 1035. Immature
1725		Barn Swallow (*H.rustica*)		
21 Oct 1000	MET	Green Heron (*Butovides virescens*)	18°46′N 74°50′W 25′NW Haiti	M.V. *Markhor*. S. Tame
1015		2 Palm Warblers		S
1505		Palm Warbler	off Haiti	Observed catching and eating flies

ANALYSIS BY SEA AREAS—TABLE E 1973 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
23 Oct 1000	MET	Yellow-Billed Cuckoo (*Coccyzus americanus*)	14°37′N 64°52′W 180′S Virgin Is.	M.V. *Markhor*. Found dead
26–27 Oct	MET	Palm Warbler	Atlantic Coast Northern S. America	At least one still onboard from 21st
28 Oct	MET	Palm Warbler	01°50′N 40°48′W 350′N of Brazil	Found dead

1974

18 Mar 1630	MET	Common Egret (*Casmerodius albus*)	28°14′N 76°27′W 100′NE Bahamas	S.S. *Queen Elizabeth II* (Cunard Line)
7 April 1230	D	White-Banded Mockingbird (*Mimus triurus*)	36°00′S 56°13′W 60′S Montevideo	S 7½ hrs. Arr S, dep N. Wind 100/18kt.
18 April 0900	E	Shiny Cowbird (F) (*Molothrus bonariensis*)	26°17′S 47°13′.9W 80′SE Brazil	Coloured sketch. S 10 hrs. Tired. Dep W. Wind 350/5kt. V good vis.
3 May 1330Z	MET	Scarlet Tanager (M) (*Piranga olivacea*)	20°08′N 52°33′N 530′NW Leeward Is.	S.S. *Northern Star*. Capt. W. A. Murison. Last port Barbados

TABLE F

NORTH SEA AND ENGLISH CHANNEL

1973

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
3 June 2030	B	Turtle Dove (*Streptopelia turtur*)	53°13′N 03°20′E NE Yarmouth 70′	S. SW/4. Cloudy

4 June	B	Turtle Dove	51°21′N 01°52′E	Remaining from last night.
0410–0800			Dover Straits	
		Wood Pigeon (*Columba palumbus*)		Flying E–W. SSW/4 bc
		Swallow (*Hirundo rustica*)		Arr SE, dep NW
1645	B	Swallow	50°N 02°21′W	Flying S to N. Light airs, bc

TABLE G

MEDITERRANEAN AND ADRIATIC

1973

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
20 Oct	E	10 Robin (*Erithacus rubecula*)	41°00′N 6°21′E	Calm. Overcast, sultry. S 24 hrs +
1000			80′W of Sardinia	
		5 Chaffinch (*Fringilla coelebs*)		S 24 hrs +
1700		*flava* Wagtail	39°12′N 7°52′E	Flying insects throughout day.
			65′W Sardinia	
21 Oct	E	8 Chaffinch	37°30′N 12°32′E	S. Lively, hunting insects. Light airs
			10′S of W. Sicily	
		Robin		S
22 Oct	E	White Wagtail (*Motacilla alba*)	38°56′N 17°42′E	SSW/3. Overcast and humid
0800			30′E Calabria	
		4 Chaffinch		
1500		Pipit Sp. Red-throated? (*A. cervinus*)	40°33′N 18°24′E	Wind NW/3
			10′NE heel of Italy	
23 Oct	E	Waxwing? (*Bombycilla garrulus*)	43°49′N 14°36′E	2 short sightings only. Calm. Vis 30′
0800			25′SW Yugoslav offshore Is.	
		2 Wren (*Troglodytes troglodytes*)		S 2 hrs
		Robin		S. Poor condition
		Chaffinch		+ two found dead
28 Oct	M	2 *flava* Wagtail (*Motacilla flava*)	38°54′N 00°43′E	SSW/3 b. Flying N to S
			25′S St Antonio	
1640–1745		2 White Wagtail (*M.alba*)		S

ANALYSIS BY SEA AREAS—TABLE G 1973 (*continued*)

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
29 Oct 0930–1020	M	3 Robin	30°14′N 04°08′W	S. Light airs, bc
		Blackcap (*Sylvia atricapilla*)	25′SE Malaga	S
		2+ White Wagtail		S
		Black Redstart (M) (*Phoenicurus ochruros*)		S
		Chaffinch (F)		S
		1974		
22 Mar	MET	1 Long-eared Owl (*Asio otus*)	36.5°N 32.6°E	S.S. *Uganda* (P. & O.). Capt G. Barrett, M.N. Owl remained all day. Numerous small migrating birds identified with assistance of Mr C. K. Mylne. Sky overcast. Winds light south-easterly
		1 Hoopoe (*Upopa epops*)	25′ off coast SW Cyprus	
		Several Willow Warbler (*Phylloscopus trochilus*)		
		about 10 Chiffchaff (*P.collybita*)		
		1 Robin		
		2 White Wagtail (*M.a.alba*)		
		1 Sardinian Warbler (*Sylvia melanocephala*)		
		8 Lesser Whitethroat		
		6 Stonechat (*Saxicola torquata*)		

TABLE H

INDIAN OCEAN, RED SEA AND PERSIAN GULF

1973

Date (local time)	*Ref.*	*Species (Latin name)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
18 April 1000	A	2 Red-footed Falcon (*Falco vespertinus*)	17°23′N 67°43′E 350′W of Bombay	Flying NE. Wind NW/3. Good vis. S 4 days. One caught butterfly. Fed meat and released in Persian Gulf to fly off ENE. Excellent colour photos

16 June 0630Z	MET	African Hobby? (*Falco cuvieri*)	17°46′N Red Sea 40°26′E Ethiopia 50′	M.V. *Donegal* (Trinder Anderson & Co)
7 July 1615	B	Sand Martin (*Riparia riparia*)	27°29′N 51°31′E 14′SW Iran	S. D 8th. N. NNW/3. b
26 July 1250Z	MET	Osprey (*Pandion haliaetus*)	12°03′N 55°15′E Indian Ocean 60′ nearest land	S.S. *Esso Caledonia*. S 4 mins
4 Aug 1135	B	Hoopoe (*Upupa epops*)	23°11′N 59°33′E Arabian Sea 60′NW Ras al Hadd	S. Wind variable F2 Hazy
24 Aug 0900	B	Rose-Coloured Starling? (*Sturnus roseus*) 2 *flava* Wagtail (*Motacilla flava*)	24°42′N 58°19′E G. of Oman. 60′N of Muscat	S, juv. SE/2 b S
1300		Hoopoe	25°34′N 56°32′E	S. SE/3 b
1625		Kite (*Milvus milvus*) 3 Swallows (*H.rustica*?)	Str. of Hormuz	SE/3 b
25 Aug 0700	B	Turnstone? (*Arenaria interpres*)	24°41′N 53°42′E 50′N of Oman	Light aurs, b. Black and white wing pattern
4 Oct	MET	2 Red-eyed Dove (*Streptopelia semitorquata*)	11°04′N 53°00′E E of C Guardafui	M.V. *Port Alfred* (Cunard). Capt. M. H. C. Twomey. S 2 days. Left G. of Oman
10 Oct 0545Z	MET	*flava* Wagtail (Blue-headed?) (*M.f.flava*)	13°36′N 55°53′E Near Socotra	M.V. *Hector Heron* (Cayzer Irvine & Co.)
15 Nov a.m.	MET	Peregrine Falcon (*Falco peregrinus*)	3°00′S 67°40′E NW Chagos Archipelago 700′+ SW Ceylon	M.V. *Antiloemus*. Capt. R. M. Simpson. S 36 hrs. Weak. Fed and flew away recovered
		– last seen 9°30′S 54°00′E		
30 Nov 1720	MET	Turnstone?	13°08′S 60°05′E 600′E Madagascar 500′NW Mauritius	M.V. *Markhor*
4 Dec 1530	MET	Falcon Sp (Red-footed?)	03°17′N 79°5′E 180′ Ceylon, 300+ Maldives	M.V. *Markhor*. S 1 hr
13 Dec	MET	Hobby (*Falco subbuteo*)	31°24′S 62°54′E 700′SW Mauritius	M.V. *British Holly* (BP Tankers). Capt. E. Henderson. Exhausted. S. P. Excellent sketches
20 Dec 1150	MET	Grey Heron (*Ardea cinerea*)	30°51′S 36°25′E 6.5′E of S. African Coast	M.V. *Benledi*. Capt. W. C. Watson

ANALYSIS BY SEA AREAS—TABLE H (*continued*)

1974

Date (*local time*)	*Ref.*	*Species* (*Latin name*)	*Lat. & long.* (*nearest land*)	*Remarks: wind, weather, vis, etc.*
25 Mar 1510–1540	F	800+ Pallid Swift? (*Apus pallidus*)	26°21′N 56°39′E Straits of Hormuz 6′W of Masandam Peninsula 9′SE Lt. Quoin Lt.	Flying NNW. One flock 500+, one 100+, one 50+ smaller groups. Ht 0–200′
29 Mar 1115–1150	F	3 White Wagtail (*Motacilla alba*)	28°40′N 49°19′E 45′E of Neutral Territory	S. Light airs. Overcast. Numerous moths and insects onboard
		1 *flava* Wagtail		S
		2 Wheatear (M) (*Oenanthe oenanthe*)		S
		1 Hoopoe		Flying SE
		2 Kestrel (F) (*Falco tinnunculus*)		
30 Mar 1000	F	2 Desert Wheatear (*Oenanthe deserti*)	26°19′N 53°29′E 26′SSW Persm	S. SE/2 bc
1620–1800		Desert Wheatear	26°06′N 55°06′E 7′S of Island 28′S Persian Coast	S. SW/2 O
10 April 0800	F	2 Black Drongo (*Dicrurus adsimilis*)	04°59′N 98°18′E 46′ESE NE Sumatra	S. Light airs. Ofp
1030		Paradise Flycatcher (F) (*Terpsiphons paradisi*)	04°43′N 98°38′E 76′ESE Sumatra	S. W/2, or
1115		2 Swift Sp	04°39′N 98°46′E 84′ESE Sumatra	S. Arr from W
1245	B	3 Black Drongo	04°28′N 99°05′E 106′ESE Sumatra	S. WNW/2 cfp.

TABLE I

PACIFIC AND SOUTH CHINA SEA

1972

Date (local time)	*Ref.*	*Species (Latin names)*	*Lat. & long. (nearest land)*	*Remarks: wind, weather, vis, etc.*
4 April	MET	Swallow Sp (*H.rustica*?)	33°N 138°30′E N. Pacific 750′SW San Francisco	M.V. *Orotava Bridge*. Capt. G. W. Spong. D 1½ hrs

1973

2 Sept	MET	Whimbrel (*Numenius phaeopus*)	Pacific 50′E of Okinawa	M.V. *Tredan* (Hong Kong). Capt. R. D. MacDonald
22 April	MET	Ruddy Kingfisher (*Halcyon coromanda*)	11°S 123°E SW Roti Island (Timor)	M.V. *Orotava Bridge* (Ore Carriers Ltd.)
14 Sept 1630	F	Greenshank (*Tringa nebularia*)	49°26′N 132°18′W 180′SW Vancouver Is.	
19 Sept 0800	F	Chaffinch (F) (*Fringilla coelebs*)	Bering Sea 54°30′N 175°39′W	S ½ hr. Good vis
21 Sept 1130	F	6 Little Bunting (*Emberiza pusilla*)	54°07′N 175°19′E	S 6 hrs. Fed with wheat grains. Calm, good vis
29 Sept 1015	F	Turnstone (*Arenaria interpres*)	35°01′N 125°00′E Yellow Sea 180′SE Tsingtao	Flew past. Wind NW/4, poor vis. rain. Flying W to E
		2 Purple Herons (*Ardea purpurea*)		
1115		3 Purple Herons		Flying W to E. Poor vis
30 Sept 0915 1030	F	2 Swallow (*Hirundo rustica*) 10 Swallow 5 Swallow	38°55′N 120°38′E 30′W of Port Arthur	Flying past. Wind NW/4. Hazy

ANALYSIS BY SEA AREAS—TABLE 1 1973 (*continued*)

Date (*local time*)	*Ref.*	*Species* (*Latin name*)	*Lat. & long.* (*nearest land*)	*Remarks: wind, weather, vis, etc.*
1 Oct 0100Z	MET	Humming Bird Sp?	38°18′N 135°40′E 60′W Sado (Japan)	M.V. *Tacoma City* (Reardon Smith Line). S. Very weak
2 Oct 1305	G	Bar-tailed Godwit (*Limosa lapponica*)	26′23°.8S 164°53′.7E 900′WNW Midway Is.	C 5 mins. SE/12kt. Good vis. Wind WSW light
14 Oct 0800	H	Plover Sp Dotterel?	Barrier Reef 350°N Reef Lt. 11nm	
25 Oct	MET	Swallow (numerous) (*Hirundo rustica*) Common Egret (*Casmerodius albus*)	12°36′N 112°40′E S. China Sea 200′+ S Paracel Is.	S.S. *Benvrackie* (Ben Line). Capt. J. D. Pryde, *et al.* Many Swallows and several Finches remained 2 days
26 Oct 1100	I	Swallow (*H.rustica*)	05°50′N 130°17′E 300′SE Mindanoa	Flew past
30 Oct	I	White-collared Kingfisher? (*Halcyon chloris*?) Common Egret (*Casmerodius albus*)	12°00′S 140°10′E Torres Strait	
3 Nov	MET	Falcon Sp (prob. Peregrine)	13°46′N 98°24′W N. Pacific 180′ Coast of Mexico	M.V. *Silverfjord* (Silver Line). Capt. J. W. Whitelaw. S 2 days, caught and ate 4 small sea-birds
15 Dec 1400Z	MET	Common Egret	3°00′N 83°06′W N. Pacific 220′W Ecuador	M.V. *Hinakura* (P. & O.). S. briefly

1974

21 April 1630Z	MET	3 Red-backed Hawk?	54°43′S 64°51′W 6′NW Terra del Fuego	M.V. *Ionic* (Shaw Savill). S 3 days
22 April 1000	C	2 Night Heron (*Nycticorax nycticorax*)	32°43′N 126°09′E 350′SW Los Angeles	Circled ship. Wind WSW/3, hazy. Vis 6nm
23 April 1000	C	White Wagtail (*Motacilla alba*)	Near Chaken Tao Is.	Calm. Vis 6nm
29 April 0800	C	6 Grey Heron (*Ardea cinerea*)	Tsingtao Inner Roads	Flew past. Calm. Good vis

SOME EXTRACTS FROM METEOROLOGICAL REPORTS 1973/74

From Notes received by Captain N. B. J. Stapleton, R.D.

ALBATROSSES FOLLOWING SHIPS IN THE NORTH PACIFIC

Captain I. R. Atkinson, M.V. *Patroclus*, on passage from Yokohama to Balboa, records that on 8th May, 1974, four immature Black-footed Albatrosses followed the ship for some days later being joined by twelve others at 27°30'N, 124°27'W. The adults were sooty-brown, slightly paler on foreheads and cheeks, a white area showing around the base of their reddish-brown bills and with black legs. The immatures appeared to have whitish upper tail-coverts.

(*Note:* These Albatrosses are observed regularly following ships on passage right across the North Pacific.)

RED-FOOTED BOOBIES ONBOARD

Captain D. Penberthy, M.V. *Fernie*, on passage from Balboa to Japan, when off the coast of Costa Rica on 30th January, 1974, found nothing unusual when two of these Boobies appeared resting on the masts. During the following days their numbers increased daily until by 5th February, 40 birds were settled on the masts. The birds did not appear disturbed by numerous visits of people to the forecastle to study them through binoculars. One bird was found on deck, apparently a young Booby. Several small squid and fish were found on the deck beneath the masts, dropped by the birds on return from fishing trips. By 12th February the numbers decreased until eventually all had left.

SEABIRDS FEEDING ON FISH IN THE HUMBOLDT CURRENT

Captain R. K. T. Thomas, M.V. *Orbita*, at 15°02'S, 75°06'W on 28th December 1973, reports that while on passage from Matarani towards Callao, Peru, the ship passed through a vast shoal of fish extending to a distance of nine miles upon which large numbers of Chilean Pelicans were feeding.

On 13th June, 1974, Captain R. T. Riley, M.V. *Orduna*, while on passage from Guayaquil to Callao at 6°S, 81°15'W, 5 to 10 miles off Punta Aguipa, Peru, a distinct change in the colour of the sea water was noticed, the water observed to be dark brown with long streaks of scum-like material streaming out in the direction of the wind. Much bird life was in evidence, mainly Waved Albatrosses, Chilean Pelicans, Guanay Cormorants and Petrels.

An hour later the colour of the water had changed to sea green with no scum and the seabirds were noticeably scarce.

(*Note:* The Petrels may well have been Sooty Shearwaters which, together with Pink-footed Shearwaters, have been plotted previously migrating northwards in the area at this season.)

COMMON CORMORANT (Australia, Black Cormorant) ONBOARD

Captain R. P. Royan, M.V. *Hector Heron*, on passage from Townsville towards Darwin at 10°56'S, 139°27'E on 2nd July, 1973, reported the appearance of a Common Cormorant onboard in the dark. Torches to identify the visitor resulted in a rush of flapping wings towards the light. The bird stood about 18 inches high, with a bill 5 inches long, was black above with medium brown neck appearing to show "down", and was probably an immature. It was finally captured after a quick bite into an officer's hand and launched over the side.

NORTHERN LIMITS OF ALBATROSSES AT SEA OFF WEST COAST OF AFRICA

Captain I. A. W. Williamson, M.V. *Clan Macnair*, on passage from Mombasa northward-bound from Avonmouth, reported that four Wandering Albatrosses in varying immature plumage were following his ship since Capetown. A close watch was kept on them from 20°S to observe at what stage they were expected to break away. On 18th September at 11°S, 1°W there was little wind and they kept very low over the sea having trouble keeping up with the ship. In the event, they remained with some difficulty until 21st September at 10°S, 2°W, before breaking off.

(*Note:* A study of a number of northerly plots of Wandering Albatrosses in this area over the years, and only during the summer months between June and September, shows only two occasions just north of 10°S, with five between 11° and 15°S. Due to the regular conditions of calm windless weather at this latitude, when Albatrosses would find difficulty of becoming airborne, it appears that 10°S is probably their northern limit.)

CEYLON CROWS TAKE A LONG SEA VOYAGE

Captain S. E. E. Allerton, M.V. *Flintshire*, on leaving Colombo for London on 26th July, 1974, noticed that a few of the local Black Crows were following his ship but thought they would soon leave. However, about 12 of these Crows refused to leave even when the ship passed within 16 miles of Diego Garcia. They were now becoming something of a nuisance as they congregated on the boat-deck or in the port lifeboat making quite a mess wherever they went. It was thought that they would leave when the ship

was off South Africa, but by this time six had refused to leave. Since the ship might have called at Capetown, it occurred that the ship might be fined for importing foreign birds. A crew "safari" was ordered which succeeded in clearing the ship.

(*Note:* Some years ago four Ceylon Crows boarded a ship leaving Ceylon for Australia. One of these wily birds, on inspecting a ship's deck ventilator, was blown down into the hold and later discovered dead, but the remainder refused to leave until the ship reached Geelong harbour when all three flew ashore!)

The above is but a small selection of a much increased number of seabird and landbird reports included within the meteorological log returns by British merchant ships which R.N.B.W.S. gratefully acknowledges.

SHORT NOTES

NOTE ON SOME BIRDS ON OAHU ISLAND, HAWAIIAN ISLANDS

Dr Mike Harris, Associate Member, recently at Pearl Harbour on Oahu Island, mentions that the landbirds on the island are a fascinating mixture, nearly all imported by humans. Of these the most common varieties, showing country from which they originated and date of import, are: Eastern Cardinals, *Richmondena.c. cardinalis* (Eastern U.S.A., 1929): Brazilian Cardinals (South America, 1928): Barred Doves (Malaya, 1922): House Sparrows (New Zealand, 1871): Mynahs (India, 1865): Skylarks (England, 1865): and of course the Nene Goose, which owes its survival from extinction from some reared and sent by Sir Peter Scott from the Severn Wildfowl Trust.

Dr Harris is hoping to visit Midway Island to study the Black-footed and Lasan Albatrosses, Terns and other species.

HERRING GULLS SURVIVE AFTER INADVERTENT BURIAL IN AN ICE STORE – Report from *The Scotsman*, 24th January, 1974

On leaving Ullapool for Norway, and unknown to the crew of the Norwegian *Fryser Trio* herring ship, three Herring Gulls on-board had penetrated a hold containing a cargo of iced herrings, and had been buried alive when a consignment of ice went down the chute. On unloading four days later the birds were discovered looking stiff and dead. On removal from the store and in two hours to the astonishment of the crew they began to show signs of life. On revival they were fed, began flapping across the deck and were last seen heading out to sea.

Dr W. R. P. Bourne, who had not heard of a similar case, considered that they had probably been frozen slowly into a comatose state, and being shut in the darkened hold had slept thus throughout the trip.

SEABIRDS IN THE HABIT OF LANDING ONBOARD SHIPS AT SEA

[*Note by Editor:* Oceanic seabirds normally keep clear of ships at sea and rarely land onboard voluntarily unless caused by an accident.]

From very many sea passage reports received over the past 20 years I can only recall 4 occasions on which an Albatross has been reported on deck (see frontispiece illustration in this volume).

Occasionally Southern Great Skuas have been known to settle on the masts and yards of ships.

On the other hand, Tropical Boobies regularly land onboard, sometimes in numbers and remain for some days to make use of a vantage point, often on the forecastle, from which to pursue flying fish disturbed from the bow wave. Tropic-birds of all species and Sooty Terns, *Sterna fuscata*, are all in the habit of following ships in the dark in search of squid brought near the surface in ship's wake, and are frequently found on deck when daylight comes. On these occasions they have probably become confused by the ship's light at night and in some cases, but not all, may have collided with the ship's structure.

Storm-petrels have frequently been discovered on decks but in nearly all cases have actually never been seen to fly onboard. This brings to mind the cases of seabirds coming onboard attracted by ship's lights. The notable case of White-capped Noddies is one instance quoted by Lieutenant M. K. Barritt in this volume. In 1966 Chief Engineer J. O. Brinkley's ship was loading fish meal at Chimbote, Peru, on 24 July (*Sea Swallow*, volume 19: 1967, page 15) and during the night, only discovered at daylight on 25th July when the ship was proceeding close inshore, a remarkable assortment of Storm-petrels was found onboard. There were no less than 25 Wilson's Storm-petrels, 2 Elliot's Storm-petrels, 1 White-bellied, 2 Hornby's and 8 Galapagos Storm-petrels in addition to 2 Pink-footed Shearwaters. It seems probable that these had all been attracted by the ship's light. More recently during 1974, when H.M.S. *Hecla* was carrying out meteorological experiments stationed in latitude 8°47′N, 23°06′W, Commander J. A. L. Myers, in command, reported that between 6th and 12th September Madeiran Storm-petrels were frequently observed on the upper deck at night, not infrequently returning to the lit upperdeck after having been hand-launched and taken wing out to sea.

Further cases of seabirds landing onboard ships at sea will be welcomed.

BOOK REVIEW

SPARE TIME AT SEA. Dr Ronald Hope. Stanford Maritime Ltd., 12-14 Long Acre, London W.C.2 9LP. £2.50. The book follows an original edition published 20 years ago. Since then

seafarers' life at sea has seen many changes for the better, including opportunities available for leisure-time recreations at sea.

With his wide and up-to-date experience of life at sea Dr Hope has covered in this new book practical advice with excellent diagrams and illustrations over a vast range of leisure-time activities. These include "keeping fit" showing a chain of exercises: swimming: a great variety of deck games both on and below decks: "outdoor hobbies", including birdwatching at sea with special reference to the Royal Naval Birdwatching Society: fishing: life in the sea: photography: art: even keeping chickens! "Other hobbies" include working with wood and other materials: lettering: plants: pets, etc. There is a chapter on "study" and "spare time ashore".

This is surely a book worthy of a place on every traveller's bookshelf, and not only at sea. *Editor.*

OBSERVATIONS OF SEABIRDS 1970-1972

By W. R. P. Bourne and T. J. Dixon
(The Seabird Group, Department of Zoology, Aberdeen University)

In our last review of information in R.N.B.W.S. sea reports in *Sea Swallow* 22 we stated that we hoped to bring it up to date in the next number. Since then we have slipped another year but now make up three, which is a slight improvement. For the period 1970-72 we have had 515 report sheets, 120 census sheets and 38 reports on birds examined in the hand, rather more of the first, fewer of the second and much the same number of the third as in the previous three-year period, representing about the same volume of information over all. As before, they have represented a difficult problem for analysis, since it is impossible to quote all the routine observations, though these will we trust still be valuable one day for plotting normal distributions, while it is often difficult to know to what extent it is possible to rely on marginal records. Please, if you see something doubtful or frankly unusual, do record a few notes about it, rather than leaving us to take reports of Great Auks swimming off South Georgia and that sort of thing on trust! It is often possible to decide what value to attach to such records in the light of other information, but a few details are always helpful.

In this connection, it may also be stressed that records of birds examined in the hand are particularly valuable. Even if they only involve common species in areas where their presence is well known details of their weight, overall measurements (length and wingspan) which are hard to obtain from skins, the colours of the soft parts at different seasons, the timing of the moult and so forth may be valuable, while especially when they are accompanied

by photographs they are by far the most satisfactory way of establishing the presence of birds in areas where it was doubtful without having to collect them. If birds should happen to die, which happens from time to time in even the best-regulated establishments, remember that somewhere there is probably a museum which would be pleased to have it as a specimen, if it is labelled with its place and date of origin and frozen in a polythene bag. These are certainly welcome at the Sub-department of Ornithology of the British Museum (Natural History), Tring, Herts., where past R.N.B.W.S. records are now on file, and Mr M. P. Walters is prepared to answer any simple queries which arise as a result of the summaries in *Sea Swallow*.

Since our last summary the establishment of a Seabird Group to promote local investigations in Britain and Ireland has also been followed by the formation of an Australian Seabird Group (address: P.O. Box 235, Civic Square, A.C.T. 2608, Australia) and a Pacific Seabird Group (address: Dr G. J. Divoky, U.S. Fish and Wildlife Service, 1412 Airport Way, Fairbanks, Alaska 99701, U.S.A.), the latter dealing with the west coast of North America, while similar activities are also being organised in South Africa among other areas. The XVIth International Ornithological Congress in Canberra in August 1974 provided an opportunity for many of the people concerned to meet and compare notes, notably in the need for the development of uniform recording techniques, and the Congress programme included a plenary session of contributions devoted to seabirds, an evening discussion of points of common interest, and a cocktail party to entertain the visitors organised by the Australian Seabird Group; the papers from the plenary session and an account of the discussion will be published in due course in the proceedings, and abstracts of all the papers given at the Congress in the *Emu*. In addition to participating in these activities Bill Bourne was able, as a result of the hospitality of many people but especially Mr J. Paterson and Associated Steamships Pty. Ltd., to make a belated acquaintance with southern seabirds during voyages across the Great Australian Bight and from the Chatham Islands back to Sydney. There is clearly now a great deal of work under way in Australasia which should produce interesting results in the years to come.

REPORTS RECEIVED DURING 1970-1972

During 1970-1972 notes were received from the following 24 observers or groups, hereafter referred to mainly by the initials of the first name, in addition to the observations from the North Atlantic weather ships summarised by Mr J. H. Agnew in *Sea Swallow* 22:20-26 and 23:29-33, some notes from logbooks returned to the Meteorological Office summarised by Captain J. D. Stapleton in *Sea Swallow* 22:27-28 and 23:70-71, and various individual

communications there. The voyages concerned are listed briefly here to indicate the extent of the information available, and many more details will be found in the original notes.

Mr R. H. Allan. Southampton-Cape of Good Hope-Melbourne, Feb.-March, Melbourne-New Zealand-Panama-London, Sept.-Nov. 1969. 11 pages of reports.

H.M. Yacht *Britannia*. U.K.-Madeira-Barbados-Panama-Galapagos-Easter Island-Pitcairn Island-Fiji-New Hebrides-New Guinea, Jan.-March 1971. Portsmouth-Cape of Good Hope-Singapore-Gan-Seychelles-Mauritius-Cape of Good Hope-Portsmouth, Jan.-April 1972. 19 pages of reports.

Captain D. H. Butcher. Persian Gulf, May 1972. 1 page of reports.

Captain P. W. G. Chilman. Bombay-Kandla and return, Madura-Calcutta-Bombay, March-April 1969. Bonny-Le Havre-Persian Gulf-Sydney July-Sept. 1969. Geelong-Persian Gulf-Singapore and return twice-Singapore Sept.-Dec. 1969. Persian Gulf-Sydney and return Dec. 1969-Feb. 1970. Punta Cardon-Fall River and return-Baltimore and return-Dundee-Rotterdam-Bonny-Tenerife-Point Noire-Lagos-Curacao-Shellhaven May-Oct. 1970. Piney Point-Curacao-Acajutla and return-Sweden and return-Maine and return-New Hampshire and return-Quebec and return Jan.-May 1971. Genoa-Bonny-Rotterdam-Cape of Good Hope-Persian Gulf-Maine-Venezuela Sept.-Nov. 1971. North Norway-Denmark April 1972. Liverpool-Frederika May 1972. Rotterdam-Algeria-Gothenburg-Es Sidr-Teesport Aug. 1972. 82 census sheets.

Captain W. F. Curtis. Gibraltar-Cape of Good Hope-Bahrain-two return trips to Singapore-Cape of Good Hope-exercises in tropical Atlantic-U.K. June-Nov. 1969. 32 pages of reports, 8 census sheets.

Sub.-Lt. D. Elliott. Moray Firth Sept-Oct. 1969. Gibraltar and Mediterranean Jan.-May 1970. 4 pages of reports, 4 census sheets.

Mr I. G. Hall, South-west Australia-Singapore-Hong Kong-Singapore-Solomons-Auckland, July-Oct. 1970. Sydney-Fremantle-Cape of Good Hope, July-Nov. 1970. Plymouth-San Juan, June 1971. 24 pages of reports.

Mr P. A. Kemp. Plymouth-Virginia, June, Plymouth-Mediterranean and return, Sept.-Oct. 1969. Two pages of reports.

Radio Officer L. E. Lofgren. France-Cape of Good Hope-Persian Gulf, July 1970. 14 pages of reports.

Radio Officer E. L. Marchant. Eastern U.S.A.-Gulf of Mexico-Mediterranean and return-Mediterranean, Oct. 1969-Feb. 1970. Western U.S.A.-Japan-Durban-Italy, July-Oct. 1970. Dominican Republic-Panama-Japan-Australia-Abadan- South Africa-Poland-U.S.A. Feb.-Sept. 1972. 52 pages of notes.

Mr D. H. Mobberley. West Africa and tropical Atlantic, May 1969. U.K.-tropical Atlantic-Cape Town-Mauritius-Rodriguez-Sydney, June-July 1971. South-west Australia-New Zealand and return-

Singapore Aug.-Sept., 1971. Japan-Queensland and return-Vancouver and return twice-Alaska-Panama-Rotterdam-Pentland Firth-Philadelphia, Feb.-Aug. 1972. Vancouver-Panama-Rotterdam, Dec. 1972. 86 pages of reports, 6 census sheets.

Messrs. E. R. Parrinder and J. W. Taylor. Mombasa-Seychelles-Aldabra-Mombasa. April 1970. 10 pages of notes, 3 census sheets.

Cdr. M. C. Powys-Maurice. Portland-Gibraltar-St. Helena-Cape of Good Hope-Mozambique Channel-Singapore-Maldives-Dubai-Mombasa-Mozambique Channel-Cape of Good Hope-Gibraltar, March-November 1972. 30 pages of reports.

Mr A. Rogers. Sydney-Wellington-Punta Arenas-Buenos Aires-Rio-Canaries-Lisbon-Vigo-Southampton, Nov.-Dec. 1970. 8 pages of reports.

Captain K. Salwegter. Japan-western Australia-Hong Kong and return-Japan-Vancouver, Nov. 1969-May 1970. Holland-Caribbean-Japan-western Australia-Durban-Amsterdam, May-Sept. 1970. Virginia-Panama-Tokyo-western Australia-Durban-Amsterdam, Dec. 1970-April 1971. Durban-Alexandria-Cape Town-Singapore-Japan-western Australia and return-British Columbia, May-Nov. 1972. 142 pages of reports.

Mr G. H. Selby-Smith. Toulon-Southampton, March 1970. Bay of Biscay, Oct. 1971. Two pages of reports.

Lt.-Cdr. J. F. Shorthouse. Arctic cruise, April 1970. 8 pages of reports.

Mr D. M. Simpson. Japan-Shanghai-south Australia-south China-Yokohama-Panama-Cuba-Shanghai-south Australia, Jan-Aug., 1970. Borneo-Japan and return-Japan-Hong Kong-Borneo-Japan. Jan.-June 1972. 36 pages of reports, 15 census sheets.

Major F. J. Smith, R.M. Sydney-Auckland-Fiji-eastern North America-Panama-U.K. June-July 1971. 18 pages of reports.

Lt. R. A. Smith. Persian Gulf area, Feb.-Sept. 1970. 18 pages of reports. 1 census sheet.

Captain K. R. Stubbs. Persian Gulf area, Feb. 1972. One census sheet.

Captain M. Strickland. London-Lourenco Marques and return, Sept.-Oct. 1971. Four pages of reports.

Captain J. W. Waldie. Gibraltar-Freetown-Cape of Good Hope-Japan-Dampier-Cape of Good Hope-Europe, Jan.-March 1972. English Channel-Virginia-Panama-Japan-western Australia-Taranto, July-Oct. 1972. 18 pages of reports.

Mr B. Watts. Southampton-Athens and return, October 1970. 8 pages of reports.

NOTES ON SPECIES

Albatrosses: Family *Diomedeidae*

The most interesting report by L.E.L. is of a Great Albatross, with entirely dark upperwings but an entirely white body, including the back and tail, associating with over 2,000 Mollymawks and smaller Petrels around a fishing boat at 32°42'S 16°46'E at noon on 17 July 1970. This particular combination of characters only occurs with the Chatham Island race of the Royal Albatross, *Diomedea epomophora sanfordi*, and the locality is just under a hundred miles off the coast of South Africa, where this species has not been recorded yet, though it is to be expected from time to time. In this area Wandering Albatrosses were also seen north to 13¾°S ½°E by W.F.C. on 4 November 1969 and 10½°S 1¼°W by K.S. on 21 July 1972.

A.R. provides some useful notes of Mollymawks seen off both coasts of South America in December 1970 on a voyage from New Zealand to England via the Magellan Strait, including a probable Shy Albatross, *Diomedea cauta*, in the central South Pacific at 49°S 128½°W, thirty Grey-headed Albatrosses, *Diomedea chrysostoma*, but no Black-browed, *D. melanophris*, 220 miles west of Chile on 6 December, and over 1,000 Black-browed on the other side of South America along the edge of the Falkland Current around 49°S 65°W on 8 December. He remarks that Grey-headed Albatrosses are darker above than Buller's Albatross, *Diomedea bulleri*, with an underwing which appears to resemble that of the Black-browed at all ages, some immatures having entirely dark underwings while most had white in the centre, but that in most birds the bill appeared blackish, with the yellow stripe on the culminicorn visible in few of them, and that on the mandible in none: they were therefore probably largely immature birds. Some had dark grey-brown heads uniform with the back, and two largely whitish heads with a dark collar similar to some young Black-browed Albatrosses, while the adults had pale grey heads much lighter than the mantle. The white-headed subadult plumage was overlooked for a long time but has recently also been described by W. L. N. Tickell (*Ibis* III:102-105.).

True Petrels: Family *Procellariidae*

Four birds reported by P.J.S.S. as Giant Petrel, *Macronectes* sp., seen with a mixed flock of Terns and Shearwaters at 6½°N 164½°W off the Line Group on 6 July 1971 were unfortunately not described, though he is apparently familiar with Australian seabirds and Giant Petrels are perhaps marginally more likely there at that season than the only species with which they are likely to have been confused, Black-footed Albatrosses, *Diomedea nigripes*.

P.W.G.C. saw some three to five thousand Northern Fulmars, *Fulmarus glacialis*, around trawlers and had about fifty following

BIRDS EXAMINED IN THE HAND

Species	*Observer*	*Date*	*Location*		*Sea temp.*	*Length*	*Wing-span*	*Notes*
Cape Pigeon	K. Salwegter	21/9/69	29°43′S	31°08′E	23°	330	860	Caught line.
Mottled Petrel	D. H. Mobberley	17/3/72	51°23′N	140°54′W	4.4°	322	750	Found dead.
Bonin Petrel	E. L. Marchant	2/8/70	35°04′N	175°40′E	—	—	—	
Black-winged Petrel	J. A. F. Jenkins	21/1/71	30°04′S	178°09′W	22.5°	—	—	Macaulay Id. 19m.
(*Pterodroma* sp.?)	A. D. F. Dalton	7/5/70	30°25′S	160°00′E	23°	370	900	Lord Howe Id. 50m.
Jouanin's Petrel	N. G. Cheshire	19/9/63	16°24′N	41°06′E	33°	320	840	
Wedge-tailed Shearwater	I. G. Hall	12/9/70	4°08′N	128°05′E	25°	406	914	Dark phase.
White-faced Storm-petrel	P. W. G. Chilman	4/10/70	40°36′N	35°12′W	23°	192	412	Bill 20mm.
White-faced Storm-petrel	I. G. Hall	1/11/70	37°15′S	127°50′E	9.5°	182	400	Dead; bill 16mm.
White-bellied Storm-p.	P. B. Rowe	12/6/69	5°S	5°W	27°	174	454	Tarsus 36; toe 16mm.
White-bellied Storm-p.	H.M.Y. *Britannia*	15/4/72	17°S	00°09′W	25°	—	—	) One was photo-
White-bellied Storm-p.	H.M.Y. *Britannia*	19/4/72	2°30′N	13°40′W	28.9°	—	—	) graphed.
Madeiran Storm-petrel	D. H. Mobberley	6/4/72	34°17′N	149°39′E	15.6°	200	544	Black tips rump.
Leach's Storm-petrel	P. W. G. Chilman	17/4/71	43°35′N	59°08′W	5°	204	458	Found dead.
Leach's Storm-petrel	J. O. Brinckley	13/5/69	45°N	41°39′W	14.5°	192, 198	460, 485	Two; wt. 39, 44g.
Leach's Storm-petrel	T. A. Chrich	23/9/71	56°24′N	8°03′W	15°	209	408	Wt. 56g.
Leach's Storm-petrel	C. I. Griffiths	30/9/71	52°42′N	19°42′W	14.5°	187	—	
Leach's Storm-petrel	R. C. L. Aran	25/10/70	52°30′N	19°54′W	12.9°	205	400	
Leach's Storm-petrel	M. P. Harris	2/2/70	15°14′N	54°56′W	16°	200	—	Sl. body moult.
Leach's Storm-petrel	P. W. G. Chilman	24/4/71	16°27′N	69°05′W	28°	194	450	
Leach's Storm-petrel	K. Salwegter	18/9/70	7°30′S	4°35′W	22°	230	445	
Leach's Storm-petrel	P. J. S. Smith	12/7/71	38°40′N	141°40′W	16°	195	—	Pale rump.

Leach's Storm-petrel	P. J. S. Smith	20/7/71	27°N	114°W	23°	170. 190	—	Two; ptly dark rumps.
Leach's Storm-petrel	E. L. Marchant	25/2/72	20°57′N	130°55′W	—	—	—	
Leach's Storm-petrel	E. L. Marchant	4/8/70	34°31′N	164°53′E	—	—	—	
White-tailed Tropic-bird	I. G. Hall	2/8/70	8°55′S	105°33′E	22.5°	610	915	Race *fulvus*; wt. 398g.
Red-tailed Tropic-bird	I. G. Hall	3/8/70	6°31′S	105°05′E	24°	693	1054	Wt. 439g.
Northern Gannet	R. Dyer	22/6/70	62°N	33°W	7.2°	888	1725	Adult; tail moult.
Kittiwake	R. C. L. Aran	2/2/71	58°58′N	18°54′W	9.1°	356	790	Adult; found dead.
Kittiwake	R. C. L. Aran	25/10/70	52°33′N	19°32′W	13.2°	382	800	Imm.; hooked line.
Kittiwake	K. Salwegter	19/1/71	29°26′N	157°00′W	17°	393	915	Adult, tired.
Common Tern	R. B. Dyer	12/6/70	62°N	33°W	6.7°	330	715	
Sooty Tern	P. W. G. Chilman	19/10/69	5°49′N	90°56′E	26°	365	846	Immature.
Bridled Tern	P. W. G. Chilman	29/12/69	2°56′N	78°23′E	26°	349	766	Wing & tail moult.
Black Tern	P. W. G. Chilman	25/1/71	13°33′N	89°50′W	28°	219	568	At buoy. Imm.; died.
White Tern	J. A. F. Jenkins	19/1/71	21°12′S	175°30′W	27°	320	675	Vomited squid.
Little Auk	R. B. Dyer	23/3/70	59°N	19°W	8.8°	210	390	Badly oiled; died.
Little Auk	R. C. L. Aran	1/4/69	50°00′N	18°14′W	9.3°	188	272	Died.
Little Auk	R. B. Dyer	13/4/69	52°30′N	20°W	10.3°	212	380	Body moult.

Temperatures Centigrade Measurements in millimetres

his vessel at 70¼°N 18¼°E off north Norway on 7 April 1972, and saw groups of twenty to thirty around trawlers and had occasional individuals around the vessel at 57¾°N 9½°E off west Norway on 9 August 1972, while J.F.S. saw a pure white bird at 67°N 3°W on 22 April 1970. R.H.A. reported a Southern Fulmar, *Fulmarus glacialoides*, off Sydney Heads on 25 September 1969, and over 10,000 Prions, *Pachyptila* sp., of more than one species on both sides of the vessel for more than fifty miles around 36¼°S 171½°E west of the North Island of New Zealand on 28 September 1969. A.L. saw thousands again at 40°S 172°E in the western approaches to Cook Strait on 27 November 1970; most of these had broad dark tips to the tail and were probably *Pachyptila turtur*, which breeds locally. Smaller numbers of Prions were seen elsewhere, including nine by L.E.L. at 27¾°S 34°E off South Africa on 30 July 1970.

There are a number of records of large Gadfly Petrels. The most interesting, seen by A.R. at 45½°S 175¼°W north of the Chatham Islands on 28 November 1970, was described as "clearly a *Pterodroma*, size and upperparts very similar to the Mottled Petrel, *Pterodroma inexpectata*, but underwing completely dusky except for a very faint narrow pale central stripe, head, neck, throat and possibly upper breast darkish grey as upperparts, remaining underparts white" and agrees best with the lost Magenta Petrel, *Pterodroma magentae*, which may be the same as the Chatham Island Taiko whose continued existence is still a matter of debate. He also saw Great-winged Petrels, *Pterodroma macroptera*, continuously beyond the continental shelf when leaving Sydney on 26 November, and White-headed Petrels, *Pterodroma lessonii*, regularly between Wellington and 49½°S 117°W from 28 November to 3 December, and again at 52°S 80¾°W off the Strait of Magellan on 6 December. K.S. recorded this species in the Indian Ocean between 30¼°S 81°E and 30°S 66½°E from 1-4 September 1970, and again at 39°S 116°E on 21 December 1971. He saw its close ally Schlegel's Petrel, *Pterodroma incerta*, between 32¾°S 16¾°E and 23¼°S 8¼°E between 13-15 September and again at 18¼°S 4¼°E on 17 September and 17°S 4°E on 5 October 1970. P.W.G.C. recorded this species at 14½°S 2°E on 8 August 1969 and again at 25½°S 105¼°E on 30 September, D.H.M. saw one at 31¼°S 33¾°E on 15 July 1971, about forty around 29°S 40°E next day, and others between 20°S 65¾°E and 19¾°S 77½°E on 20-22 July. A.R. saw about forty at 42°S 59½°W off eastern South America on the afternoon of 9 December 1970, when he noted that some were in fresh brown plumage while the majority looked very faded, and that they appeared to have paler tips to the inner primaries though they were otherwise uniformly brown both above and underneath the wing.

K.S. recorded a possible Kermadec Petrel, *Pterodroma neglecta*, at 9¼°N 88°W on 24 June 1970, and two definite ones at 10¾°N

96°W next day, and also a possible Trindade Petrel, *Pterodroma arminjoniana*, at 3¼°N 11½°W on 10 October 1971, which he described as brownish-black with stiff, slender wings which were greyish-white below. He recorded White-necked Petrels, *Pterodroma externa*, between 10¾°N 96°W and 15°N 111°W during 25-28 June 1970, and another without comment at 26¼°N 128½°W on 14 January 1971: A.R. also reported a grey-backed Gadfly Petrel with a white belly and underwing at 52°S 80¾°W off the western end of the Magellan Strait on 6 December 1970 which was probably this species. D.M.S. saw ten Hawaiian Petrels, *Pterodroma phaeopygia*, at 21½°N 163°W on 8 April 1970, and sixty at 21½°N 156°W next day, also two more large Petrels which were blackish-brown above and white below with dark edges to the underwing at 15¾°N 114°W on 25 May, and another at 23¼°N 160°W on 2 June which were probably this species. They were seen at 21°N 160°W on 6 July 1970 by K.S., and 20¾°N 158°W on 8 July 1971 by P.J.S.S.

A.R. recorded Mottled Petrels, *Pterodroma inexpectata*, in the Tasman Sea at 37½°S 162½°E on 26 November 1970, and from leaving Wellington on 28 November to 49°S 128½°W on 2 December. D.H.M. recorded many in their winter quarters in the North Pacific, including 540 at 48½°N 126½°W on 28 April 1972, about 150 at 52¼°N 154½°W on 1 June, over 120 around 54½°N 144°W next day, 75 at 56°N 137°W the day after, nine at 51°N 132½°W on 7 June, and one at 34½°N 122½°W on 11 June; the identity of the bird listed among those examined in the hand was confirmed by Mr R. Wayne Campbell at the Vertebrate Museum of the University of British Columbia. P.J.S.S. also described another possible Mottled Petrel seen at 6½°N 164½°W on 6 July 1972 as larger than a Cookilaria and grey above but white below, with a black edge to the underwing.

There are also a number of records of the Soft-plumaged Petrel, *Pterodroma mollis*. In the Southern Hemisphere W.F.C. saw one at 5½°S 6½°W on 20 June 1969, three at 11½°S 1½°W two days later, and two at 15½°S 2°E the day after that. L.E.L. saw one at 13¾°S 1°E on 13 July 1970 and the unprecedented total of 150 around 27¾°S 34°E off Natal on 20 July 1970. P.W.G.C. saw three at 18¾°S 5½°E on 9 August 1969 and seven at 28°S 33½°E on 15 August, and K.S. one at 14°S 93¼°E on 15 August 1971. P.W.G.C. also reported 15 around 31°S 30°E on 25 September 1971, described as dark brown or greyish-black above with a dark head, a white chin and underparts with a dark chest-band, an underwing with a dusky white centre, and dark under-tail coverts; this description is not ideal, but it is not clear what else it applies to. Four more nearby at 26¾°S 34¼°E on 20 October and seven at 27½°S 91½°E on 24 October were moreover accompanied by two and one similar dark birds respectively, possibly Great-winged Petrels(?) W.F.C. reported three at 13¾°S 3¾°E on 4 November

1969, one at 10°S 3°W next day, and three at 6¼°S 6½°W the day after, and across the equator in the North Atlantic one at 2¾°N 15¾°W on 16 November. Further north A.R. saw four at 13½°N 24°W on 20 December 1970, and provides a useful description. The upperparts were wholly brownish-grey, paler grey on the tail. The white forehead could not be seen, but the underparts were white except for the dark underwing, and the black markings at the side of the face were seen several times. They were superficially similar to White-headed Petrels, *P. lessonii*, in their grey appearance and dark underwing, but smaller and darker on the head and tail, with the W pattern on the upperwing barely visible where it is reasonably prominent in *P. lessonii*.

As usual, there are a number of records of members of the Cookilaria group of Gadfly Petrels. D.H.M. reported over thirty Bonin Petrels, *Pterodroma hypoleuca*, at 24¾°N 141°E north of the Marianas on 7 February 1972, mainly alone though a dozen were circling over an area of water like Terns. D.M.S. reported four at 26¼°N 174¼°E on 5 April 1970, another at 28½°N 175°E on 4 June, and twenty at 33¼°N 150°E on 11 June. K.S. saw two possible birds at 27½°N 164¾°E on 12 July 1960, two at 30°N 151¼°E two days later, and three at 24°N 139°E on 26 July. E.L.M. had one on board at 35°N 175¾°E on 2 August 1970 (the descriptions include the characteristic red legs). In the southern hemisphere, A.R. saw a possible Black-winged Petrel, *Pterodroma* (*hypoleuca*) *nigripennis*, at 34½°S 153½°E on 25 November 1970, ten definite ones at 37½°S 162½E° next day, and a Chatham Petrel, *Pterodroma* (*hypoleuca*) *axillaris*, at 45½°S 175½°W on 28 November, noticing the characteristic dark axillaries which distinguish it from the preceding species. He saw possible Cook's Petrels, *Pterodroma cookii*, at 37½°S 162½°E on 26 November and 49°S 128½°W on 2 December, and D.M.S. also reported 200 at 16½°N 118½°W on 26 May 1970, described as having the upperwing grey with a darker mark through the eye and on the primaries, the back brownish, paler on the rump, and the forehead, a conspicuous band across the webs of the primaries, and underparts including the underwing clear white; an unusually good description. Lt. S. Trodden on H.M.Y. *Britannia* reported two Collared Petrels, *Pterodroma leucoptera brevipes*, off Vila in the New Hebrides on 11 March 1971, mentioning the distinctive breast-band, while K.S. also attributed two birds seen at 18¾°N 143½°W on 3 July 1970 to *P. leucoptera*, though Stejneger's Petrel, *Pterodroma longirostris*, is possibly more likely there; another was also reported by D.M.S. at 33½°N 154°E on 10 June 1970, described as very small, little bigger than a Storm-petrel, greyish above with a very conspicuous thick dark W across the upperwings and clear white below, including the underwings, and flying with much flapping despite a good breeze; another good description. Unidentified Cookilarias were also reported by K.S. from 33°N 137¾°E and 24°N 139°E on 16

and 26 July 1970, and by P.J.S.S. between ¼°S 167°W and 13¼°N 161¼°W between 5-7 July 1971, and at 23¾°N 155½°W, 30¼°N 116¾°W and 23¾°N 112°W on 9, 19 and 20 July.

There are an unusual number of records of Bulwer's Petrel, *Bulweria bulwerii*. In the Atlantic M.C.P.M. saw three at 5¾°N 14¾°W on 4 April 1972, W.F.C. two at 31¾°N 11½°W on 12 June 1969, L.E.L. two at 30½°N 12½°W on 4 July 1970, P.W.G.C. one at 1°N 37¼°W on 20 September 1970 and at 5¾°N 25¼°W on 31 October 1971, W.F.C. birds at 2¾°N 14°W and 20¼°N 18°W on 16 and 20 November 1969, and A.R. one at ½°S 30¼°W on 18 December 1970 and again at 6¼°N 27°W next day. In the Pacific K.S. saw a possible bird at 5½°N 128°E on 13 February 1971, D.H.M. four possibles at 38°N 153¼°E on 8 March 1972, K.S. one at 19°N 156½°W on 5 July 1970 and two possibles at 31¼°N 144¼°E ten days later, D.M.S. twenty at 26°N 124½°E on 4 July 1972, P.J.S.S. saw one at 20¾°N 158°W on 8 July 1971, five at 23¾°N 155½°W next day, and one at 30°N 150°W the day after. In the Indian Ocean P.W.G.C. saw a possible bird at 1°S 82¾°E on 30 January 1972, described as a small, all dark brown or black Petrel, perhaps paler on the belly, with quite a long tail and an erratic flap-and-glide flight. Among other records K.S. had three birds which were either this species or dark Storm-petrels at 3¾°S 84°E and 7½°S 87½°E on 12 and 13 August 1971, and L.E.L. also reported ten Jouanin's Petrels, *Bulweria fallax*, at 10°N 54¾°E in the Arabian Sea on 27 July 1970.

Among numerous records of Cory's or Mediterranean Shearwaters, *Calonectris diomedea* = *Puffinus kuhlii*, P.W.G.C. estimated there were 540 at 37½°N 12½°E on 18 July 1971 and 729 at 37½°N 10½°E four days later in the central Mediterranean, many of them following trawlers in flocks, while six were following a school of Porpoises. M.C.P.M. saw many in the Strait of Gibraltar on 3 November 1972, possibly leaving the Mediterranean. W.F.C. also saw many on their way south and some in the winter quarters off South Africa at this time in 1969, including 18 at 35°S 20¼°E on 29 October, six at 33½°S 18°E next day, one at 29½°S 14¼°E the following day, at least 350 on 7½°N 17¼°E on 17 November, at least 400 at 11½°N 17½°W next day, over 1,000 at 16°N 17½°W the following day, and 83 at 20½°N 18°W the day after that. A.R. saw three still lingering near the equator at 30°W on 18 December 1970, and R.H.A. found that 250 were already present north of it, possibly on the return migration, at 7°N 14½°W on 8 February 1969.

There are also numerous records of the west Pacific representative of the last species, the White-faced or Streaked Shearwater, *Calonectris leucomelas*, from both ends of its range. On 21 January 1970 D.M.S. saw one at 17¾°N 116¾°E, while a large flock of some 600 dark, white-bellied shearwaters which he saw in the distance at 8¼°S 134½°E might also have been this species, as could six large, white-bellied petrels seen at 6°S 152¾°E by D.H.M.

on 13 February 1972. D.M.S. certainly saw six at 10½°N 120°E on 16 February 1972, a hundred at 12°N 121°E on 23 February 1970, and D.H.M. eleven at 15½°N 143¼°E on 28 February 1972. By March the birds are beginning to move north: D.M.S. saw a hundred at 30°N 131°E on 6 March 1972, though there were still three at 16¾°N 119¾°E five days later. He had a hundred at 28°N 125¼°E on 27 March 1970, twenty at 32°N 133°E next day, 500 at 34°N 138¼°E the day after, and 1,000 at 33¼°N 138°E on 31 March 1972. D.H.M. saw over 1,000 at 33½°N 136°E on 8 and 11 April in that year as well, and some 3,500 at 33¾°N 136¾°E on 23 May. D.M.S. saw 1,000 at 33°N 132°E on 6 July 1972, while K.S. had some records indicating the time of the return south, including four at 11½°N 128°E on 26 November 1969, one at 6°N 126°E next day, and eleven at 19°N 116¼°E on 26 December.

Among other records, P.W.G.C. saw three Wedge-tailed Shearwaters, *Puffinus pacificus*, in the Indian Ocean at 18½°N 85¾°E on 19 March 1969, at least 30 at 4°S 87¼°E on 6 September and probably 16 in the distance at 5°S 86¼°E on 31 December. M.C.P.M. saw many within fifty miles of Cochin on 16-17 August 1972, and D.S. ten at 4½°N 92½°E on 10 August 1972 and at 5½°N 97½°E next day, and 25 at 14°S 114¼°E on 14 October. D.M.S. saw thirty, two in the pale phase, at 7°S 126°E in the Banda Sea on 26 July 1970, three at 21°N 122¾°E in the Philippines on 12 May 1972, and sixty at 12¾°N 120¼°E near Apo Island on 1 July. A number of birds reported as Pink-footed Shearwaters, *Puffinus creatopus*, off the west coast of Central America in the northern winter might also have been the pale phase of this species from the North Pacific, which apparently winters in that area (W. B. King, Smithsonian Contributions to Zoology 158:53-95), including five birds reported at 6°N 83°W by R.H.A. on 2 November 1969, three reported at 19°N 105°W by D.H.M. on 13 December 1972 with four he saw around 16°N 98°W next day, 15 around 10°N 88°W the day after, and about 350 at 8¼°N 84°W the day after that, also about 300 reported around 8½°N 84°W by P.W.G.C. on 20 January 1971 with 15 at 8½°N 84°W four days later. A.R. reported four Grey-backed Shearwaters, *Puffinus bulleri*, at 40°S 172°E when approaching Wellington on 27 November 1970, and three more sailing east again next day, and birds which may have been pale-phase Wedge-tailed Shearwaters were also reported as this species in the north-east Pacific as well.

Great Shearwaters, *Puffinus gravis*, were reported all round the Atlantic. In the north, P.W.G.C. saw two at 12½°N 19°W on 30 August 1970, and P.J.S.S. 500 around trawlers at 49½°N 12½°W on 8 August 1971. P.W.G.C. saw 61 at 47¼°N 6½°W on 9 September 1971, K.S. five at 26¾°N 16¼°W on 25 September 1970, P.W.G.C. some 200 flying east in parties and then 50 around 49°N 10°W on 8 October 1970, K.R.S. four south of the Isle of Wight on 27 October 1972, P.W.G.C. three at 41½°N 69¼°W on 11 November 1970.

and W.F.C. one at 29°N 14½°W on 22 November 1970. In the South Atlantic P.W.G.C. had 136 at 33½°S 17¼°E on 23 October 1971, W.F.C. 150 with another 1,000 large Shearwaters which he thought more likely to be this species than Cory's at 35°S 20¼°E on 29 October 1969 and another 18 at 33½°S 18°E next day. Sailing north from the Magellan Strait A.R. saw the first bird at 49°S 65°W on 8 December 1970, at least thirty at 42°S 59½°W next day, and diminishing numbers until the last four at 7¾°S 33½°W on 17 December. K.S. saw two at 26°S 11¾°W on 24 March 1971, three at 7°S 2°W next day, and two at 2½°S 5½°W the day after. D.H.M. saw one at 6°S 4¾°E on 24 May 1969 and three at 3¼°S 9°W five days later, and K.S. one at 5½°S 6°W on 6 June 1972. J.M.W. also saw a possible bird in the southern Indian Ocean around 20¼°S 74¾°E several times on 5 October 1972, noticing the black cap, far to the east of any previous records. There are also a number of more or less doubtful records of the related Pale- or Fleshy-footed Shearwater, *Puffinus carneipes*, in this and the Pacific Oceans. The most notable in the first is a bird seen by L.E.L. at 4½°N 52°E on 26 July 1970, with four at 10°N 54¾°E next day and 28 in an area with many small flying fish at 16°N 57½°E the day after. Three possible birds which D.M.S. reported at 14¼°N 116½°W and two more which he saw at 15¾°N 114°W next day might alternatively have been Black Petrels, *Procellaria parkinsoni*, which J. H. Jehl has recently found wintering in this area (*Auk* 91:681-699).

In the Atlantic P.W.G.C. saw the first 16 Sooty Shearwaters, *Puffinus griseus*, feeding and moving north at 42¾°N 59¼°W on 10 April 1971. W.F.C. saw two at 31¾°N 11½°W on 12 June 1969, and four at 27¾°N 16¼°W next day, and P.W.G.C. two dark Shearwaters in the distance with Cory's Shearwaters at 37½°N 12½°E in the central Mediterranean on 18 July 1971, an exceptional record. He had 40 at 46°N 1°W off the mouth of the Gironde on 1 August 1971, and three at 27°N 17°W on 26 August 1970, and again at 17¾°S 4½°E on 20 September 1971; this last record is interesting as an indication that they may move south in the eastern tropical Atlantic. The situation is complicated in the Pacific by the presence of the closely-related Short-tailed Shearwater, *Puffinus tenuirostris*, and the two species were not always distinguished. In the south the most spectacular records refer to the latter; thus for example P.W.G.C. calculated he saw 142,000 at 39¼°S 146½°E in the Bass Strait around Wilson's Promontory on 12 January 1970, which agrees very well with an estimate by D.M.S. of 150,000 in the same area on 2 February in that year. D.H.M. reports that he saw about 200 of each species together at 4¾°N 147¼°E on 26 February 1972, a remarkably early date for them to be moving north, and D.M.S. next reports 200 Short-tailed and 10 Sooties at 21½°N 156°W on 9 April 1970. D.H.M. then saw at least eight thousand Sooty Shearwaters moving north around 37°N 151°E on 25 April 1972, another 800 at 45°N 172¾°W

on 29 May, 3,000 Sooty and Short-tailed Shearwaters moving north at 49½°N 162¼°W on 31 May. 100 Short-tailed Shearwaters at 55°N 142¼°W on 2 June, and 51 at 51°N 132½°W on 7 June. D.M.S. saw what he thought were 200 Short-tailed Shearwaters with ten Sooties at 21½°N 156°W off Hawaii on 9 April 1970, with two more Sooties at 21¾°N 149°W next day. P.J.S.S. saw at least a thousand Sooties rafting off Vancouver Island on 14 July 1971, and as many again near a whaling factory ship at 44¼°N 124¾°W next day. A.R. encountered migrants passing south at a rate of about forty per hour around 45°S 175°W when sailing east from Wellington on 28 November 1970, with fewer around 47°S 164°W next day.

There are a number of records of black and white Shearwaters which present difficulties because in some cases there seems to have been confusion between members of the Manx and Little groups as well as with other species. In addition to the usual records off western Europe and in the Mediterranean P.W.G.C. reported Manx Shearwaters. *Puffinus puffinus*, in the western North Atlantic at 37°N 52°W on 26 February 1971, 44¼°N 58¾°W on 5 May 1971, and 39½°N 37¼°W on 4 October 1970. This species was also reported off West Africa at 5½°N 14¼°W by K.S. on 21 September 1970, possibly a migrant on its way south, though other small Shearwaters seen in lower latitudes in the North Atlantic including 19 seen at 10°N 16¾°W on 13 May 1969 by D.W.M., one seen at 6¾°N 13¾°W on 17 August 1971 by P.W.G.C., and one seen at 34½°N 31¼°W on 14 November 1969 with twelve seen at 41¼°N 20½°W two days later by R.H.A. were identified as Little Shearwaters, *Puffinus assimilis*. Little Shearwaters were reported off south-west Africa at 27¾°S 12½°E on 16 July 1970 by L.E.L. and at 27¾°S 12½°E on 14 September 1970 and 30°S 14½°E on 4 December by K.S., in an area where K. Lambert has recently reported wintering Manx Shearwaters (Beitr. Vogelkd. 17:1-32): A.R. also reported a Manx Shearwater at 49°S 65°W off Argentina on 8 December 1970.

In the North Pacific the identification of Manx Shearwaters is further complicated by the presence of the pale-phase of the Wedge-tailed Shearwater. Reports of Manx Shearwaters from the west coast of central America are therefore open to the same doubts as those of Pink-footed Shearwaters, but a bird seen at 8°N 83¾°W on 6 January by K.S. was identified as Townsend's Shearwater, *P.p. auricularis*, some 288 seen at 13¼°N 89¾°W on 21 January 1971 with five seen at 12¼°N 89½°W two days later by P.W.G.C. were identified as Black-vented Shearwaters, *P.p. opisthomelas*, and the first form was reported again at 13°N 100°W on 19 April 1970 by D.M.S. and at 14°N 85°W on 23 July 1971 and at 7°N 80½°W two days later by P.J.S.S. K.S. reported Black-vented Shearwaters daily between 9¼°N 88°W and 15°N 111¼°W during 24-28 June 1970, and seven of the Hawaiian race, *P.p. newelli*, at 21°N 160°W on 6 July. In addition to various records of

Fluttering and Hutton's Shearwaters, *Puffinus gavia* and *P. huttoni*, around New Zealand and south-east Australia, A.R. also reported two possible birds in the central South Pacific at 47½°S 164¼°W on 29 November 1970, an area where Little Shearwaters are reported more often.

There are three records from the tropical Pacific that can probably be attributed to Audubon's Shearwater, *Puffinus l-herminieri*, one of a bird seen at 14°S 170°E in the Banks Group by I.G.H. on 22 October 1970, one seen off Espiritu Santo in the New Hebrides by Lt. S. Trodden on H.M.Y. *Britannia* on 12 March 1971, and 19 seen at 21½°S 151¼°E off Queensland by D.M.S. on 14 February 1970. The last were described as small Petrels which were dark above and white below with the under-surface of the wings white: Audubon's Shearwater was apparently collected in this area during Cook's first voyage almost exactly 200 years before, but does not appear to have been reported there since. In the Indian Ocean P.W.G.C. reported about 326 at 26¼°N 54½°E in the Straits of Hormuz on 30 November 1969, about 3,546 nearby at 26¼°N 55°E on 20 December, and one off the west coast of India at 12½°N 74½°E on 4 April 1969, while L.E.L. reported birds off east Africa at 27¾°S 34°E on 20 July 1970 and 13°S 44¼°E three days later: the latter appears to be the first record in the vicinity of the Comoro Islands, where it might be expected to breed.

Storm-petrels: Family *Hydrobatidae*

As usual there are numerous records of Wilson's Storm-petrel, *Oceanites oceanicus*. Among other Atlantic records, K.S. saw what must have been the first northbound migrants between 11¾°S 10½°E and 2½°S 5½°W during 27-29 March 1971, and found that they had reached 44°N 20°W by 26 May 1970. In the Indian Ocean M.C.P.M. saw a few at 19½°S 35½°E off Beira in May 1972, many within fifty miles of Cochin on 16-17 August, and a thousand at 14°N 51¾°E in the approaches to the Gulf of Aden on 11 September. P.W.G.C. also saw 200 at 21¾°N 59¾°E in the approaches to the Persian/Arabian Gulf on 12 October 1971, and saw birds daily in the eastern Indian Ocean between 8°N 77¼°E and 6°N 93½°E during 16-19 October 1969. K.S. saw 16 here at 4½°N 92½°E on 10 August 1972.

There are an unusual number of records of White-faced Storm-petrels, *Pelagodroma marina*, from the Atlantic. M.C.P.M. saw two possible birds at 22½°N 17°W on 31 March 1972. W.F.C. one at 31¾°N 11½°W on 12 June 1969, P.J.S.S. two at 42°N 47°W on 5 August 1971 and again at 45¾°N 36¼°W next day, and P.W.G.C. one at 40½°N 35¼°W on 5 October 1970. W.F.C. saw one at 6¼°S 6½°W in the tropical Atlantic on 6 November 1969, K.S. birds at 41°S 86¼°E on 17 December 1971 and again at 40¾°S 93¾°E next day in the southern Indian Ocean, and A.R. large numbers at 45¾°S 175¼°W north of the Chatham Islands during the morning of 28 November 1970.

There are also a considerable number of records of White- and Black-bellied Storm-petrels, *Fregetta grallaria* and *F. tropica*, most attributed to the former though the dark line down the belly that distinguishes the latter may often be missed. Two certain identifications of *F. grallaria*, since the birds came aboard H.M.Y. *Britannia* in the tropical Atlantic in April 1972, are listed with birds examined in the hand. P.W.G.C. also reported one at 3¼°N 7¼°E here on 12 August 1970; he notes he saw the white belly clearly. In the Indian Ocean they were recorded from July to October. L.E.L. reported a bird with a dark line down the belly at 4½°N 52°E on 26 July 1970, and two of these, three with white bellies, and ten where the markings could not be distinguished at 10°N 54¾°E next day. W.F.C. reported a long series of White-bellied Storm-petrels in the Indian Ocean without distinguishing either Dark-bellied or White-faced, which should also have been there, including up to three birds daily between 4¼°N 51½°E and 13½°N 57°E on 9-11 July 1969, at least 80 at 18¾°N 59°E on 14 July, three at 16¾°N 69°E on 8 August and six at 19½°N 65½°E next day, two at 22°N 61½°E on 16 August and again at 19°N 65¾°E next day, two at 6°N 86°E on 22 August, one at 14¼°S 41½°E on 23 October and another at 19°S 39°E next day, and five at 34¼°S 24¾°E on 28 October. Further south K.S. reported two Black-bellied Storm-petrels at 30¼°S 81°E on 1 September 1970 and three again at 30¾°S 80°E next day, two at 32¾°S 16¾°E on 13 September and again at 30¼°S 44¾°E on 25 September, and one at 29¾°S 39¼°E next day, while K.S. also had one at 31½°S 31°E on 10 October 1972 and J.W.W. one at 26¾°S 47¼°E on 10 October 1972 and a possible one at 30¼°S 36½°E two days later. In the Tasman Sea K.S. reported two White-bellied Storm-petrels off Montague Island on 22 August 1970. P.J.S.S. reported a Grey-backed Storm-petrel, *Garrodia nereis*, at 34¼°S 169¾°E in the approaches to the Cook Strait here on 29 June 1971.

M.C.P.M. had a Leach's Storm-petrel, *Oceanodroma leucorhoa*, on board at 34¾°N 7¾°W in the North Atlantic on 3 November 1972, among other records. Further south W.F.C. reports over sixty among a concentration of birds at 6¼°S 6½°W on 6 November 1969, and K.S. has a considerable series of records, including one at 9°S 3½°W on 18 September 1970, another at 16½°S 4¾°E on 26 March 1971, two at 11¾°N 1½°E next day and at 2½°S 5½°W two days later, one at 1¾°N 9°W the next day, two at 21°S 6¾°E on 4 October, one at 17°S 3½°E next day, two at 5½°S 6°W on 6 June 1972, one at 1°S 10°W next day, and three at 33¼°S 17¾°E on 26 July. In the North Pacific he saw one at 12°N 130°E on 12 February 1971, and E.L.M. had two birds onboard listed under those examined in the hand. In this area D.M.S. also saw a dark, white-rumped storm-petrel at 29¼°N 177¼°W near the Hawaiian group on 5 June 1970 which was either the Madeiran Storm-petrel, *Oceanodrom castro*, or this species.

There are records of dark Storm-petrels from both sides of the North Pacific which could belong to a number of different species. In the east the likely alternatives are dark-rumped individuals of Leach's Storm-petrel or the Black Storm-petrel, *Oceanodroma melania*. The records attributed to the latter include one seen by K.S. at 15¾°N 99¾°W on 9 January 1971, two which he saw at 10¾°N 96°W on 25 June 1970 and two more at 12¼°N 91¼°W next day, about 50 seen by D.W.M. at 28½°N 116°W on 10 December 1972, and up to seven daily from there south to 8¼°N 84°W on 17 December. In the west the likely alternatives are Swinhoe's, Matsudaira's and Tristram's Storm-petrels, *Oceanodroma monorhis*, *O. matsudairae* and *O. tristrami*. D.M.S. reported five possible Swinhoe's Storm-petrels far back in the wake at 24¼°N 130½°E on 20 January 1970, with three more at 19¾°N 134°E next day, and six possible Matsudaira's Storm-petrels at 15°N 136¾°E the day after and again at 9¾°N 138¼°E the day after that. On 7 February 1972 D.W.M. reported fifty possible Swinhoe's Storm-petrels at 22½°N 142½°E, while on 10 February 1971 K.S. reported 45 possible Matsudaira's Storm-petrels at 23°N 135°E, with three more at 17¼°N 132½°E next day. On 29 March 1972 D.M.S. obtained a good view of ten of these birds at 27¾°N 129½°E near the Ryukyu Islands, and saw the small white patch formed by the white primary shafts along the leading edge of the wing characteristic of Matsudaira's Storm-petrel: the water temperature was then 20½°C. With a water temperature of 19°C. at 30¾°N 133°E the next day they had been replaced in the wake by fifty similar birds without this white patch, which he thought might be Swinhoe's Storm-petrels; there were still twenty with a water temperature of 16½°C. at 33¼°N 138°E the day after, and he saw two more with a water temperature of 24½°C. at 22°N 122¼°E on 13 April. On 13 May 1972 D.W.M. reported 7 Swinhoe's Storm-petrels and 59 Markham's Storm-petrels without details among a congregation of birds at 34¼°N 145¼°E, while D.M.S. reported 20 Matsudaira's Storm-petrels at 33¼°N 143¾°E on 12 June 1970, and eight more possible birds at 32¼°N 136¾°E next day. K.S. reported two Tristram's Storm-petrels at 27½°N 164¾°E on 12 July 1970, and again at 28¾°N 158°E next day, and a possible Matsudaira's Storm-petrel at 25°N 123°E on 18 August 1972, with six more at 16°S 118°E off north-west Australia on 25 October 1972. Some birds seen further west in August 1971 which might also have been Bulwer's Petrels have already been mentioned under that species.

A Fork-tailed Storm-petrel, *Oceanodroma furcata*, was seen by K.S. at 47½°N 173°E on 15 March 1970, and three were seen by D.W.M. at 51°N 158¾°W on 31 May 1972, with 15 at 54°N 146¾°W on 2 June, 18 at 56°N 134¾°W on 6 June, and 14 at 46¼°N 130½°W on 8 June. P.J.S.S. reported one off Vancouver Island on 14 July 1971.

Tropic-birds: Family *Phaethontidae*

P.W.G.C. saw four Red-billed Tropic-birds, *Phaethon aethereus*, at 21°N 88¼°E in the northern Bay of Bengal on 20 March 1969, and six at the same place on 11 April, also one at 6°N 80°E near Ceylon on 11 March, while M.C.P.M. saw one within fifty miles of Cochin on 16-17 August 1972. P.W.G.C. also saw one at 30½°N 48°W in the North Atlantic on 5 November 1971, and mentions the red bill. A bird which E.L.M. had on board and identified as this species at 12°S 96°E to the west of Cocos Keeling on 14 May 1972 might also have been a Red-tailed Tropic-bird, *Phaethon rubricaudus*; although he describes it as white with a red bill and black bars through the eye and wing, he does not specify the colour of the tail; it vomited two squid and a fish. A Red-tailed Tropic-bird was certainly recorded nearby at 13¾°S 93½°E by P.W.G.C. on 3 October 1969, and J.W.W. saw three more to the east at 13½°S 120¾°E on 5 February 1972, with another nearby at 11¾°S 121¼°E on 16 February 1971. D.W.M. also saw birds at 4¼°N 151°E and ¼°S 149¼°E on 11 and 25 February 1972, and Lt. Trodden on H.M.Y. *Britannia* one off Maria Is. in the Cook group on 26 February 1971. In 1970 D.M.S. saw birds in the Tasman Sea at 29°S 153¾°E and 25¼°S 154°E on 31 January and 13 February, and off central America at 17¾°N 117¾°W and 15°N 106¼°W on 16 and 18 April, and at 16½°N 118½°W and 17½°N 127°W on 26 and 27 May.

There are a series of records of White-tailed Tropic-birds, *Phaethon lepturus*, from across the tropics. M.C.P.M. had one at 12¾°S 47¼°E on 24 May 1972, and K.S. birds at 9°S 116½°E on 20 December 1969 and 1¼°N 119¼°E two days later, 1½°N 119°E on 24 January 1970, 4¼°S 117¾°E next day, 9½°S 115½°E the day after and 14¾°S 114¾°E the day after that, 6½°S 124½°E on 5 February 1971, 8°S 116°E on 13 October 1972 and at 14°S 114¾°E next day. In the west Pacific I.G.H. had six at 13¼°N 117°E on 24 August 1970 and D.W.M. four around 6°N 147°E on 26 February 1972, and three at 10°N 145¾°E next day. K.S. had one at 11½°N 143½°E on 28 July 1970 with two at 5¾°N 146¼°E next day, and four at 5½°N 128°E on 13 February 1971. In the east Pacific D.W.M. had two at 19°N 105°W on 13 December 1972, and in the North Atlantic he had one at 23¼°N 58¼°W on 27 July 1972.

Frigate-birds: Family *Fregatidae*

Records of Frigate-birds include a dark bird, doubtless the Ascension Frigate, *Fregata aquila*, seen by P.W.G.C. at 10°S 12°W on 28 October 1971. Greater Frigates, *Fregata minor*, were seen by M.C.P.M. at 12¾°S 47¼°E off east Africa on 24 May 1972. Six (four female) and three were seen off the Nicobar Islands by W.F.C. on 27 July and 1 August 1969 and one at 6°S 152¾°E east of New Guinea by D.W.M. on 13 February 1972. A Lesser Frigate, *Fregata ariel*, was seen at 9½°S 44½°E off east Africa by P.W.G.C. on 19 August 1969, and a number of these by K.S. around the East

Indies, including four at 2°N 121½°E on 28 November 1970, one at 2½°S 118¾°E next day, two at 4¼°S 118½°E on 21 December, 46 at 7½°N 120°E on 23 January 1970, 30 at 1½°N 119°E next day, one at 9½°S 115½°E two days later, 66 at 5°N 119¾°E on 13 February, 150 at ¾°S 126¾°E on 14 February 1971, one at 6½°S 124½°E next day, and one at 8°S 116°E on 13 October 1972. J.W.W. saw three 60 miles SSW of Buru (about 4°S 126°E) on 3 February 1972.

Gannets and Boobies: Family *Sulidae*

Brown Boobies, *Sula leucogaster*, were seen by P.W.G.C. at 21¼°N 62¼°E off Oman on 6 November 1969 and in the central Indian Ocean at 5°S 86¼°E on 31 December. There are a number of records around the East Indies: K.S. saw ten at 2°N 121½°E on 28 November 1969, five at 2½°S 118¾°E next day, ten at 7¾°S 117°E the day after, five at 9°S 116½°E on 20 December, 24 at 4¼°S 118½°E next day, one at 1¼°N 119¼°E the day after, two at 13°N 120°E on 23 January 1970, one at 1½°S 119°E next day, 22 at 4¼°S 118°E the day after, 20 at 8°S 116°E the day after that, and single birds at 9¾°N 120¼°E on 14 February, at 2¾°N 122°E on 12 October 1972, and at ¾°S 120¾°E on 28 October. D.M.S. also saw two at 2½°S 127°E on 20 February 1970, one at 7°N 118½°E on 23 March 1972, and two at 7¾°N 118¾°E on 30 June, and J.W.W. six in the Omba Strait at about 8°S 126°E on 4 February 1972. In the northwest Pacific D.M.S. saw eight at 30½°N 130½°E on 28 March 1970 and 200 at 26°N 124½°E on 4 July 1972, while P.J.S.S. reported six at 6½°N 164½°W in the central Pacific on 4 February 1972.

Blue-faced Boobies, *Sula dactylatra*, were reported in the Indian Ocean at 4½°S 36°E on 12 July 1972 by E.L.M. and at 8°S 116°E on 26 January 1970 by K.S. In the west Pacific D.W.M. had an immature bird at 12¼°N 147¾°E on 9 February 1972, and one at 17½°N 142¼°E on 28 February, and D.M.S. thirty at 26°N 124½°E on 4 July 1972. In the western Pacific he saw a young bird thought to be of this species come aboard at 18½°N 120½°W, 370 miles off the Revilla Gigedos, on 15 April 1970; he describes the head and nape as golden brown, the rest of the upperparts, underwing and tail as brown, and the underparts, including the under-tail coverts as white, with some mottling forming a band across the breast, the naked skin of the face dark blue, the base of the bill blue and its middle reddish, the feet pink. It left when they were some 200 miles off Clarion Island next day, when later he saw first two adults and then two mottled immatures around 16°N 114°W. The following day there were never less than ten birds around the ship at about 16°N 110°W. About half were adults with greenish-yellow bills and in two cases yellow feet, while the immatures again had pink feet. They gave a much better aerial display than Asiatic birds, both diving and pursuing flying fish in the air.

A Red-footed Booby, *Sula sula*, was recorded by M.C.P.M. while at anchor off St. Helena on 7 April 1972. It has been found among the subfossil deposits here, but apparently has not been

recorded recently. K.S. also saw an immature bird at 4½°S 7¼°W in the tropical Atlantic on 19 September 1970, and P.W.G.C. two more in the distance at 5°S 86¼°E in the Indian Ocean on 31 December 1969. K.S. saw fifty at 16°S 118°E off north-west Australia on 27 October 1972, and many around the East Indies, including birds at 2°N 121½°E on 28 November 1969 and 7¾°N 117°E two days later, three at 6°N 119¾°E on 23 December and seven at 10½°N 120¼°E next day, thirty at 9¾°N 120¼°E on 14 February 1970, one at 11½°N 143½°W on 28 July, an immature at 4¼°S 7¼°W on 19 September, 16 at ¾°S 126¾°E on 14 February 1971, 70 at 6½°S 124½°E next day, two at 2¾°N 122°E on 12 October 1972, and 30 at ¾°S 120¾°E on 28 October. In this area D.M.S. also had two at 9°N 121°E on 28 July 1970, 16 at 5°N 123°E next day, nine at 9¾°N 119¾°E on 13 March 1972, twelve at 7°N 118½°E on 23 March, 100 at 9°N 119¼°E on 22 April (all in the white phase), two at 9¾°N 119½°E on 27 April, and 60 at 7¾°N 118¾°E on 30 June. J.W.W. also saw 21 north of Buru at about 3°S 127°E on 3 February 1972.

Pelicans: Family *Pelecanidae*

Two white Pelicans with streaks of black in the wings, possibly Dalmation Pelicans, *Pelecanus crispus*, were reported by R.A.S. on the shore in the approaches to the Persian Gulf at 26°53′N 55°43½′E on 7 March 1970.

Cormorants: Family *Phalacrocoracidae*

Some 3,000 Socotra Cormorants, *Phalacrocorax nigrogularis*, were seen by R.A.S. about 11 miles north of Qatar on 3 July 1970, and M.C.P.M. saw 500 at 17½°N 57¼°E on 10 September 1972. K.R.S. reports that Zarqa Island at 24°53′N 53°05′E 70 miles north of Abu Dhabi is densely populated with these Cormorants; they are reported to breed in the northern autumn, when they are infested with ticks carrying a virus that can infect man (H. Hoogstraal, R. M. Oliver and S. S. Guirgis. Ann. Entom. Soc. America 63: 1762-8).

Phalaropes: Family *Phalaropopidae*

There are a considerable number of records of Phalaropes with the species identified with varying certainty. In the Atlantic the most southerly records were provided by P.W.G.C., who saw eight at 21½°S 4½°E on 21 September 1971 and six at 28°S 13¼°E next day in the wintering area off south-west Africa. There are a number of records from the winter quarters off West Africa, including two seen by P.W.G.C. at 6¾°N 13¾°W on 31 August 1970 and again at 21¾°N 17¾°W on 5 August 1971, sixty reported by W.F.C. at 3°S 7¾°W on 7 November 1969, 180 and possibly 2,500 which he saw at 24¾°N 16¼°W on 21 November, 2,500 which he saw in the distance at 29°N 14½°W next day, and five which he saw at 40½°N 10½°W on 25 November. The few that were identified positively in this area were as usual Grey Phalaropes, *Phalaropus*

fulicarius: P.W.G.C. also reported twelve Phalaropes on spring passage at 40¼°N 71¼°W on the north-west Atlantic on 20 May 1970. In the equally well-known wintering area for Red-necked Phalaropes, *Phalaropus lobatus*, in the Arabian Sea M.C.P.M. reported a thousand at 14°N 51¾°E on 11 September 1972, and P.W.G.C. at least two thousand at 22¼°N 60°E on 4 October 1971.

There are a considerable number of records for the little-known wintering area around the East Indies. K.S. saw 25 at 2¾°N 122°E on 12 October 1972, thirty at ¾°S 120¾°E on 28 October, many groups at 9°S 116½°E on 20 December 1969, thirty at 1¼°N 119¼°E two days later, ninety at 6°N 119¾°E on the day after, and forty at 5°N 119¾°E on 12 February 1970. D.M.S. likewise saw four at 2½°S 127°E on 20 February 1970, forty at 1¾°N 125¼°E next day and 1,600 at 7°N 121¾°E on 11 April. Where these birds were identified, they were also Red-necked Phalaropes. D.W.M. also saw a number of birds on migration to the north, including a hundred Red-necked Phalaropes at 33½°N 135¾°E on 8 April 1972, 25 at 34¼°N 145¼°E on 13 April, 120 Grey Phalaropes at 41½°N 165¾°W on 4 May, eight at 36°N 157°E on 11 May, 11 Red-necked at 36°N 146°E on 24 May, two Grey at 42°N 174¾°E on 28 May, and five Red-necked at 45°N 172¾°W the next day. He reported 17 Grey Phalaropes at 19°N 105°W in the east Pacific on 13 December 1972 and 125 at 15¼°N 97¾°W next day, while K.S. reported over 400 Wilson's Phalaropes, *Steganopus unicolor* at 15¾°N 99¾°W near here on 9 January 1972; he described them as largish birds with brownish upperparts and wings. It is a little uncertain whether this species winters at sea, though.

Skuas: Family *Stercorariidae*

There are many records of Great Skuas, *Catharacta* sp., from the temperate North Atlantic, and quite a few from lower latitudes there. R.H.A. saw one at 13°N 65½°W on 30 January 1971, M.C.P.M. some in a large mixed gathering of Skuas at 22¼°N 17°W off the coast of west Africa on 31 March 1972, K.S. one at 10°N 16°W on 1 April 1971, D.W.M. two at 1½°N 4¾°W on 21 May 1969 and one to three at 3°S 3¼°E two days later, W.F.C. five at 18½°N 59°E on 14 July 1969, P.W.G.C. one at 37½°N 10½°E on 22 July 1971, M.C.P.M. two at 22°N 59¾°E on 9 September 1972 and one at 17½°N 57¼°E next day, K.S. one at ¾°N 11°W on 20 September 1970, C.F.C. seven at ¾°N 13°W on 8 November 1969, two at 7½°N 17¼°W on 17 November and one at 11½°N 17°½W next day. Some of these may have been migrants from the south, as must have been two birds reported by M.C.P.M. in the Indian Ocean within fifty miles of Cochin on 16-17 August 1972, and one with a light head reported by K.S. at 26°N 139°E in the North Pacific on 26 July 1970.

M.C.P.M. saw some Pomarine Skuas, *Stercorarius pomarinus*, among the flock of mixed Skuas at 22½°N 17°W off West Africa on 17 March 1972, and some 500 around a large fishing fleet at 20°N

17°W there on 31 October. In the Indian Ocean P.W.G.C. saw one at 6°N 80°E on 27 March 1969, two at 7¾°N 77¾°E next day, one at 12¾°N 72°E off the Laccadives on 9 November, one at 6°N 94½°E off the Nicobars four days later, and three following large flocks of Terns at 26¼°N 55°E in the approaches to the Persian Gulf on 20 December. K.S. also saw three at 7¾°S 117°E in the East Indies on 29 November 1969, one at 6°N 119¾°E on 23 December, three at 1½°N 119°E on 24 January 1970, and four at 8°N 83¾°W off Panama on 6 January 1971, among many other records.

D.E. saw a dark-phase Arctic Skua, *Stercorarius parasiticus*, two miles off Filfla, Malta, on 24 February 1970, and a pale-phase one while at anchor off Limassol, Cyprus on 31 May 1970. M.C.P.M. saw many adults and immatures flying south-east at 22°S 9¾°E off south-west Africa on 22 October 1972, and another 400, mainly immature, flying south-east again at 17½°S 5°E next day. In the North Atlantic P.W.G.C. saw a Long-tailed Skua, *Stercorarius longica udus*, flying south-east at 41¼°N 10¼°W on 23 August 1971, and W.F.C. two at ¾°N 13°W on 8 November 1969 and again at 29°N 14½°W on 22 November. In the North Pacific D.W.M. saw two at 35°N 148¾°E on 12 May 1972, single birds at 49½°N 162¼°W on 31 May, 52¼°N 154½°W the next day, and 54°N 146¾°W and 55°N 142¼°W the day after.

Gulls: Family *Laridae*

D.W.M. saw an immature Ivory Gull, *Pagophila eburnea*, at 43½°N 162½°W in the North Pacific on 28 March 1972, and P.A.K. two Audouin's Gulls, *Larus audouini*, at 39°N 25¼°E in the Aegean on 25 October 1969. P.W.G.C. saw an adult and three young Lesser Black-backed Gulls, *Larus fuscus*, near Freetown, Sierra Leone, on 13 August 1970, and eight off Lagos, Nigeria on 10 September, while M.C.P.M. saw 200 and another 100 near a trawler at 22¼°N 17°W off Cape Blanco on 31 March 1972. P.J.S.S. saw an adult Greater Black-backed Gull, *Larus marinus*, at Hamilton, Bermuda on 2 August 1971, and D.E. two off Gibraltar on 5 February 1970. D.M.S. saw a Glaucous Gull, *Larus hyperboreus*, with a thousand Herring Gulls, *Larus argentatus*, on the ice at Hsingkang, north China on 17 January 1970, and P.A.K. a second-year (all-white) Glaucous Gull five miles off Plymouth on 16 June 1969. Lt. S. Trodden saw a small white Gull with a greyish back, doubtless a Silver Gull, *Larus novaehollandiae*, from H.M.Y. *Britannia* at Guadalcanal on 14 March 1971, and B.W. a Mediterranean Gull, *Larus melanocephalus*, at 36¾°N 8¼°W in the western approaches to Gibraltar on 6 October 1970.

In the Atlantic Kittiwakes, *Rissa tridactyla*, were found south to 22¼°N 17°W, where M.C.P.M. saw twenty following a trawler on 31 March 1972. In the east Pacific K.S. saw one at 24¼°N 122½°W on 13 January 1971, and in the west Pacific he saw one at 37°N 143°E on 27 October 1972: one which he had on board north of

Hawaii is listed with the birds seen in the hand. D.M.S. saw three with Common Gulls, *Larus canus*, at 31°N 122½°E off the coast of China on 5 January 1970, twenty at 34½°N 122¾°E six days later, and 300 at 34½°N 137°E off southern Japan on 29 January. K.S. also saw a Red-legged Kittiwake, *Rissa brevirostris*, at 46°N 174¼°E on 14 March 1970, and D.H.M. two at 51½°N 141°W on 17 March 1972. There are a number of records of Sabine's Gulls, *Larus Sabini*, in the east Atlantic, including two probable birds seen by M.C.P.M. at 9¼°N 16½°W on 29 October 1972, one seen by W.F.C. at 29°N 14½°W on 22 November 1969 and three adults at 40½°N 10½°W three days later, and three probable birds seen by R.H.A. at 22½°N 17°W on 6 February 1969. D.H.M. saw at least forty at 8½°N 79½°W in the east Pacific on 18 December 1972.

Terns: Family *Sternidae*

D.H.M. reported over a thousand Royal Terns, *Thalasseus maximus*, with a thousand Common Terns, *Sterna hirundo*, at 15½°N 17¾°W off West Africa on 12 May 1969, and D.E. nine probable Sandwich Terns, *Thalasseus sandvicensis*, with Kittiwakes forty miles south-east of Gibraltar on 30 January 1970; he remarks that whereas when other birds are approached by a helicopter they tend to dive down and away towards the sea, Sandwich Terns are exceptional in trying to rise above it, only breaking away when almost under the rotor. R.A.S. found a thousand White-cheeked Terns, *Sterna repressa*, breeding with an equal number of Sooty Terns, *Sterna fuscata*, on the Daimaniyat Islands at 24°55′N 57°59′E off south Oman on 6 July 1970; he provides detailed sketches of both of them. The first tended to nest on sand, and only had eggs, whereas the second tended to nest on the rocks and had both eggs and chicks: there were also about 300 Aden Gulls, *Larus hemprichi*, around, but he found none of their nests. This appears to be the first record of Sooty Terns breeding off the coast of Arabia, though they are known to nest at much the same season on Mait Island off the north coast of Somalia.

There are a number of records of the occurrence of Sooty Terns at sea. In the eastern tropical Atlantic D.H.M. saw forty at 10°N 16¾°W on 13 May 1969 P.W.G.C. two parties each of 400 at 3½°N 4½°E on 13 July 1969 K.S. over 500 at ¾°S 7½°W on 16 October 1972, and J.W.W. over a hundred at 3°S 8°W on 22 October 1972. In the western tropical Atlantic K.S. saw a thousand probable birds with a hundred probable White-capped Noddies, *Anous minutus*, at 12½°N 60¼°W on 2 June 1970. In the western Indian Ocean K.S. saw a hundred Sooty Terns at 30½°S 38½°E on 17 March 1971 and fifty off Durban next day, and M.C.P.M. fifty at 16°S 40¾°E on 23 May 1972. In the eastern Indian Ocean P.W.G.C. saw 25 at 4¾°N 98½°E on 20 October 1969, and six at 6°N 95¼°E on 19 November. In the East Indies K.S. reported fifty at 5½°N 128°E on 13 February 1971, twenty at ¾°S 126¾°E

next day, and fifty at 11¾°S 121¼°E two days later, and also 200 at 5°N 119¾°E on 14 February 1970. In the west Pacific Lt. D. Trodden on H.M.Y. *Britannia* saw two at Suaba Bay, 6°S 157°E, on 16 March 1971, K.S. a hundred at 2°N 139°E on 26 July 1970, and D.M.S. individuals at 9¾°N 138¼°E on 23 January 1970 and 9¾°N 118¾°E on 13 March 1972 with possibly a thousand with Bridled or Brown-winged Terns, *Sterna anaethetus*, and a similar number of Common Noddies, *Anous stolidus*, at 26°N 124½°E on 4 July 1972. K.S. recorded forty Bridled Terns in the East Indies at 4¼°S 118¼°E on 21 December 1969, and a hundred at 6½°S 124¼°E on 15 February 1971, while P.W.G.C. saw over a thousand fishing with pale terns and Audubon's Shearwaters at 26¼°N 55°E in the approaches to the Persian Gulf on 20 December 1969.

K.S. also reported Common Noddies at 6½°S 124½°E in the East Indies on 27 October 1970, in addition to the records of this species and White-capped Noddies with other Terns listed above. Lt. D. Trodden on H.M.Y. *Britannia* reported a White Tern, *Gygis alba*, at Kieta, 6°S 155°E, on 18 March 1971, and D.H.M. two at 17¾°N 145½°E on 8 February 1972.

Alcids: Family *Alcidae*

P.W.G.C. reported 44 Razorbills, *Alca torda*, off the southern end of Sula Sgeir off the Hebrides on 19 February 1971, and 285 in small groups on the water or flying west in the western North Atlantic at 48¼°N 42°W on 24 February. D.H.M. saw two Brunnich's Guillemots, *Uria lomvia*, at 40¼°N 159¾°E in the north Pacific on 9 March 1972. P.W.G.C. noticed six probable Little Auks, *Plautus alle*, at 48¼°N 42°W in the North Atlantic on 24 February 1971, and 53 at 69°N 14½°E on 7 April 1972, and D.M.S. three probable Least Auklets, *Aethia pusilla*, at 36¾°N 123¼°E in the north Pacific on 18 January 1970. D.H.M. saw two Tufted Puffins, *Lunda cirrhata*, at 41¾°N 163°E there on 10 March 1972.

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[*Note by Editor*. New Members at sea are reminded that the use of R.N.B.W.S. Sea Passage report forms add valuable information

on the distribution of both seabirds and landbirds at sea. Those wishing to take part should apply direct to Captain E. F. Aikman, address on page 1. Completed forms should be returned direct to the "Editor".]

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Kerr, M. W. B., Captain R.N., Resigned

Thain, J., Skipper, British Fishing Fleet.

MEMBERSHIP SUMMARY AT 1/11/74

Ex-Officers	7
Hon. Members	11
Life Members (original)	40
Life Members	13
Ordinary Members	237
Corporate Members	27

Totals 308 + 27 Corporate Members = 335. In addition 72 Associate Members

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